



DEPARTMENT OF ENVIRONMENTAL QUALITY

KATHLEEN BABINEAUX BLANCO

GOVERNOR

MIKE D. McDANIEL, Ph.D.

SECRETARY

Certified Mail No.

Activity No.: PER20060006

Agency Interest No.: 3585

Mr. Russ Willmon
 President & CEO
 Calcasieu Refining Company
 4359 W. Tank Farm Road
 Lake Charles, LA 70605

RE: Part 70 Operating Permit Modification, Lake Charles Crude Oil Refinery, Calcasieu Refining Company, Lake Charles, Calcasieu Parish, Louisiana

Dear Mr. Willmon:

This is to inform you that the permit modification for the above referenced facility has been approved under LAC 33:III.501. The permit is both a state preconstruction and Part 70 Operating Permit. The submittal was approved on the basis of the emissions reported and the approval in no way guarantees the design scheme presented will be capable of controlling the emissions as to the types and quantities stated. A new application must be submitted if the reported emissions are exceeded after operations begin. The synopsis, data sheets and conditions are attached herewith.

It will be considered a violation of the permit if all proposed control measures and/or equipment are not installed and properly operated and maintained as specified in the application.

Operation of this facility is hereby authorized under the terms and conditions of this permit. This authorization shall expire at midnight on the 29th of November, 2009, unless a timely and complete renewal application has been submitted six months prior to expiration. Terms and conditions of this permit shall remain in effect until such time as the permitting authority takes final action on the application for permit renewal. The permit number and agency interest number cited above should be referenced in future correspondence regarding this facility.

Done this _____ day of _____, 2007.

Permit No.: 0520-00050-V6

Sincerely,

Chuck Carr Brown, Ph.D.
 Assistant Secretary
 CCB:QMZ
 c: EPA Region VI

ENVIRONMENTAL SERVICES
 : PO BOX 4313, BATON ROUGE, LA 70821-4313
 P:225-219-3181 F:225-219-3309
 WWW.DEQ.LOUISIANA.GOV

PUBLIC NOTICE
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY (LDEQ)
CALCASIEU REFINING COMPANY
LAKE CHARLES CRUDE OIL REFINERY
PROPOSED PART 70 AIR OPERATING PERMIT MODIFICATION

The LDEQ, Office of Environmental Services, is accepting written comments on a Part 70 air operating permit modification for Calcasieu Refining Company, 4359 W. Tank Farm Road, Lake Charles, LA 70605 for the Lake Charles Crude Oil Refinery. **The facility is located at 4359 W. Tank Farm Road in Lake Charles, Calcasieu Parish.**

The Lake Charles Crude Oil Refinery separates crude oil into various petroleum fractions, including liquefied petroleum gas (LPG), naphtha, kerosene, diesel, mineral spirits, gas oil, and reduced crude. These refined petroleum products are sold and transported offsite by barge, product pipeline, and tanker truck.

Calcasieu Refining Company requested to add a reboiler to the Lake Charles Crude Refinery for the Vacuum Tower Unit.

Estimated emissions from the Lake Charles Crude Oil Refinery in tons per year are as follows:

<u>Pollutant</u>	<u>Before</u>	<u>After</u>	<u>Change</u>
PM ₁₀	14.50	17.25	+ 2.75
SO ₂	33.41	40.63	+ 7.22
NO _x	86.33	109.09	+ 22.76
CO	114.34	122.65	+ 8.31
VOC	131.67	133.66	+ 1.99

A technical review of the working draft of the proposed permit was submitted to the facility representative and the LDEQ Surveillance Division. Any remarks received during the technical review will be addressed in the "Worksheet for Technical Review of Working Draft of Proposed Permit". All remarks received by LDEQ are included in the record that is available for public review.

Written comments, written requests for a public hearing or written requests for notification of the final decision regarding this permit action may be submitted to Ms. Soumaya Ghosn at LDEQ, Public Participation Group, P.O. Box 4313, Baton Rouge, LA 70821-4313. **Written comments and/or written requests must be received by 12:30 p.m., Wednesday, April 11, 2007.** Written comments will be considered prior to a final permit decision.

If LDEQ finds a significant degree of public interest, a public hearing will be held. LDEQ will send notification of the final permit decision to the applicant and to each person who has submitted written comments or a written request for notification of the final decision.

The application, the proposed permit, and the statement of basis are available for review at the LDEQ, Public Records Center, Room 127, 602 North 5th Street, Baton Rouge, LA. Viewing hours are from 8:00 a.m. to 4:30 p.m., Monday through Friday (except holidays). **The available information can also be accessed**

electronically on the Electronic Document Management System (EDMS) on the DEQ public website at www.deq.louisiana.gov.

Additional copies may be reviewed at the Calcasieu Public Library, Lake Charles Branch, Headquarters, 301 W. Claude Street, Lake Charles, LA 70605-3457 and at the Sulphur Regional Branch, 1160 Cypress Street, Sulphur, LA 70663-5111.

Inquiries or requests for additional information regarding this permit action should be directed to Dr. Qingming Zhang, LDEQ, Air Permits Division, P.O. Box 4313, Baton Rouge, LA 70821-4313, phone (225) 219-3140.

Persons wishing to be included on the LDEQ permit public notice mailing list or for other public participation related questions should contact the Public Participation Group in writing at LDEQ, P.O. Box 4313, Baton Rouge, LA 70821-4313, by email at maillistrequest@ldeq.org or contact the LDEQ Customer Service Center at (225) 219-LDEQ (219-5337).

Permit public notices including electronic access to the proposed permit and statement of basis can be viewed at the LDEQ permits public notice webpage at www.deq.state.la.us/news/PubNotice/ and general information related to the public participation in permitting activities can be viewed at www.deq.louisiana.gov/portal/tabid/2198/Default.aspx.

Alternatively, individuals may elect to receive the permit public notices via email by subscribing to the LDEQ permits public notice List Server at http://www.state.la.us/ldbc/listservpage/ldeq_pn_listserv.htm.

All correspondence should specify AI Number 3585, Permit Number 0520-00050-V6, and Activity Number PER20060006.

Scheduled Publication Date: March 7, 2007

AIR PERMIT BRIEFING SHEET
AIR PERMITS DIVISION
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

Lake Charles Crude Oil Refinery
Agency Interest No. 3585
Calcasieu Refining Company
Lake Charles, Calcasieu Parish, Louisiana

I. Background

The Lake Charles Crude Oil Refinery was originally permitted and constructed in 1977. Numerous modifications to the refinery have been done since then. In 2004, the Haymark Terminal was acquired from Shell Pipeline Company and is used for the refinery loading operations. The previous operation permit for the facility is 0520-00050-V5, granted January 25, 2007.

II. Origin

A permit application and Emission Inventory Questionnaire, dated December 14, 2006, were submitted by Calcasieu Refining Company requesting a Part 70 operating permit modification. Additional information dated January 4, 2007 was also received.

III. Description

Currently, this petroleum refinery facility consists of two Atmospheric Distillation Units (ADUs) and associated process equipment, a storage terminal, product loading operations, and support utility systems (e.g., boilers and wastewater treatment). The ADUs separate crude oil into various petroleum fractions, including liquefied petroleum gas (LPG), naphtha, kerosene, diesel, mineral spirits, gas oil, and reduced crude. These refined petroleum products are sold and transported offsite by barge, product pipeline, and tanker truck.

Atmospheric Distillation Units (ADUs)

Crude oil and/or condensate are pumped from the storage tanks to one of two ADUs for processing. Overhead from the atmospheric distillation columns feed the stabilizer column.

Crude oil and condensate from storage is desalted, preheated in the crude heaters, and then passed through a series of heat exchangers before entering the atmospheric distillation columns. In the atmospheric distillation columns, the hot crude oil is separated into different fractions. The overhead vapor from the atmospheric distillation columns includes LPG, naphtha, and lighter hydrocarbons such as methane, ethane, propane, and butane. The overhead vapors from each atmospheric distillation column pass through a condenser, where a portion of the overhead turns into liquid. Liquid and vapors from each column flow into the accumulators. The noncondensable vent gases from each of the accumulators are treated with caustic prior to entering the fuel gas system. A portion of the condensed liquid from each accumulator is pumped back to each atmospheric tower as reflux. The remaining liquid from each accumulator is sent to the stabilizer distillation column for further processing.

AIR PERMIT BRIEFING SHEET
AIR PERMITS DIVISION
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

Lake Charles Crude Oil Refinery
Agency Interest No. 3585
Calcasieu Refining Company
Lake Charles, Calcasieu Parish, Louisiana

A side stream of heavy naphtha is drawn off the atmospheric tower trays of each atmospheric distillation column. This heavy naphtha is blended with stabilized naphtha (i.e., stabilizer column bottoms) to produce a blended naphtha product. The blended naphtha product is sent to storage prior to offsite shipment. Kerosene is also drawn off each atmospheric tower as a side stream. This kerosene product is pumped to storage prior to offsite shipment. Another side stream drawn off the atmospheric towers is diesel. The diesel product stream is treated and then sent to storage prior to offsite shipment. A final draw for the towers may include gas oil. Bottoms from each atmospheric tower, referred to as reduced crude, are pumped to storage for eventual offsite shipment.

A portion of the liquid from each atmospheric distillation column is pumped from the accumulators to the stabilizer distillation column. The stabilizer column separates the feed streams into different boiling point fractions. The overhead vapors from the stabilizer distillation column pass through a condenser, where a portion of the overhead turns into liquid. The liquid and vapors flow into an accumulator. The noncondensable vent gas from the stabilizer column accumulators is treated with caustic prior to entering the fuel gas system. A portion of the condensed liquid is pumped back to the stabilizer columns as reflux. The remainder of the stabilizer column overhead product, which is commonly known as LPG, is sent to a pressurized storage tank for storage prior to offsite shipment. Stabilizer column bottoms, also known as stabilized naphtha, are blended with heavy naphtha drawn off the atmospheric distillation columns to produce a blended naphtha product stream.

The process heaters in the ADUs are designated as H-201 (Stabilizer Reboiler), H-204 (Crude Heater), H-205 (Mineral Spirits Reboiler), and H-501 (CDU Heater). These heaters are fueled with a mixture of pipeline-quality natural gas and refinery fuel gas (RFG).

The plant flare (F-400) is connected to the flare vent header, which collects process vents from the petroleum refining process. A series of flash drums and condensers are arranged in decreasing pressure to collect the gases relieved to the vent header and separate any condensed liquids from the gases. Separated liquid fraction is recycled back into ADUs for processing. The noncondensable fraction is routed to a smokeless plant flare.

The flare routinely combusts the pilot gas, fuel gas purge, and any process vent gases from ADU turnarounds. The flare pilot is the combustion gas from the pilot burner in the flare stack, which ignites any vent gases directed to the flare stack. A mixture of pipeline-quality natural gas and RFG fuels the pilot burner. Fuel gas purge refers to adding pipeline-quality natural gas into the flare vent header. The natural gas is introduced into the flare vent header as a safety measure to ensure the vent gases in the flare header remain above their upper explosive limit (UEL); thereby, not forming an explosive mixture. All ADUs are prepared for maintenance by depressurizing the units and venting vapors to the flare. The process units would not be vented to the atmosphere unless the system pressure is 5 psig or less.

**AIR PERMIT BRIEFING SHEET
AIR PERMITS DIVISION
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Lake Charles Crude Oil Refinery
Agency Interest No. 3585
Calcasieu Refining Company
Lake Charles, Calcasieu Parish, Louisiana**

Storage Terminal

Crude oil processed at the CRC facility is unloaded at its storage terminal from barges or is delivered by tanker trucks. All of the received crude oil and condensate is initially placed in storage tanks. In addition, the storage terminal provides storage for the refined petroleum products, prior to their sales and offsite transfer. CRC also stores process additives, water treatment chemicals, and process wastes in other miscellaneous storage tanks.

Product Loading Operations

For LPG loading, a vapor return line is used to transport the displaced vapors from the tanker back to storage tank TK-201. In addition, any vapors from storage tank TK-201 are routed under pressure control to the fuel gas system. The vapor balance system on the LPG loading operation, along with the pressure control valve to relieve vapors to the fuel gas system, ensure negligible VOC emissions from LPG loading operations.

Other loading operations at the facility are Tank Truck Loading Rack (TR-100) to load diesel, kerosene, and mineral spirits; Barge Loading Marine Dock (MD-100) and Haymark Terminal Marine Dock (MD-200) to unload crude oil and load naphtha, kerosene, diesel, and reduced crude. Vapors from the naphtha loading are controlled with a Marine Vapor Recovery system (F-300). Vapors from the loading of some products with low vapor pressures (less than 1.5 psia) are vented to the atmosphere.

CRC also utilizes a product pipeline to transfer naphtha product to offsite sales. There are only fugitive emissions associated with this operation.

Steam Boilers

CRC has two steam boilers (Emission Points H-102 and H-103) that provide steam for the petroleum refining process. These boilers are fueled by pipeline-quality natural gas.

Diesel-Engine Driven Pumps

Two diesel engines are used to drive a fire water pump and an emergency stormwater pump. These diesel engine-driven pumps are intended for use during emergency upsets. The fire water pump (Emission Point P-175) is located on the Marine Dock and the emergency stormwater pump (Emission Point P-402) is located near the wastewater treatment system.

AIR PERMIT BRIEFING SHEET
AIR PERMITS DIVISION
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

Lake Charles Crude Oil Refinery
Agency Interest No. 3585
Calcasieu Refining Company
Lake Charles, Calcasieu Parish, Louisiana

Wastewater Collection and Treatment

The wastewater collection and treatment system collects process wastewater, process area storm water, and other miscellaneous wastewater streams. Process wastewater includes desalter water, boiler blowdown, and aqueous wastes from various treatment processes. Desalter water is generated from treating the crude oil to remove corrosive salts. Aqueous wastes from treating various hydrocarbon streams (e.g., spent caustic) are pumped to storage tank TK-180 and neutralized using treatment chemicals. The desalter water and the aqueous wastes from storage tank TK-180, along with the blowdown from the boiler feedwater treatment system, are pumped through above ground piping to a covered oil-water separator to mix with the process area storm water.

The process area storm water is collected by a system of process drains located in curbed areas of the facility. These process drains gravity flow to a covered oil-water separator, which is equipped with a corrugated plate that separates any entrained oil from the water. Oil separated from the wastewater, referred to as slop oil, is pumped directly from the oil-water separator back to the crude oil storage tanks. Wastewater from the oil-water separator is pumped to an air floating unit prior to being sent to storage tank TK-400.

Storage tank TK-400 is an equalization tank that allows the wastewater to reach a homogeneous state. Wastewater from this tank is pumped to the biological treatment system. The biological treatment system uses an activated sludge process to destroy contaminants in the wastewater. Treated wastewater is then discharged through a weir into the Calcasieu River. The entire wastewater collection and treatment system is designated as an area emission source (Emission Point WWTC-100).

Raw Materials

CRC utilizes crude oil as raw material. CRC also uses various chemicals such as additives, emulsifiers, and antifoam agents. These chemicals have minimal air emissions.

Fuels and Fuel Use

CRC currently has numerous stationary combustion sources, which consist of two steam boilers, five process heaters, and two diesel engine-driven pumps. The heaters burn a mixture of pipeline-quality natural gas and RFG while the steam boilers burn pipeline-quality natural gas only. The firewater pump and emergency storm water pumps are powered using diesel-fired engines.

**AIR PERMIT BRIEFING SHEET
AIR PERMITS DIVISION
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Lake Charles Crude Oil Refinery
Agency Interest No. 3585
Calcasieu Refining Company
Lake Charles, Calcasieu Parish, Louisiana**

Vacuum Tower Unit

Approved under Permit No. 0520-00050-V5, issued January 25, 2007, a new Vacuum Tower Unit will be added to refine and control products from a low-grade quality crude supply. The addition of the Vacuum Tower Unit will allow recovery of the gas-oil and diesel to high-value products from low-value residual material. The remaining residual material can be sold as a 6-oil product or coker feed. The capacity of the refinery will be 96,000 BPSD after completion of the project.

The resid product from the current crude units will be pumped directly to the vacuum unit from the crude tower bottoms. Once combined, the vacuum unit feed will be routed through a charge furnace. The furnace will vaporize the majority of the resid. The furnace outlet will enter the vacuum tower, which will be operated under deep vacuum to maximize the amount of vaporization. In the tower, the vaporized material will be condensed and removed from the tower in three draw offs – the Slop Wax, Heavy Vacuum Gas Oil (HVGO), and Diesel. The Slop Wax will be recycled back to the furnace, and the HVGO and Diesel will be taken as products. The material not vaporized will be drawn off as vacuum tower bottoms (VTB) and mixed with diesel to meet 6-oil or coker feed specifications.

With this modification, a reboiler (Vacuum Tower Unit Reboiler) will be added for the Vacuum Tower Unit project. The overall emission increases due to the Vacuum Tower Unit project are (in tons per year):

PM ₁₀	SO ₂	NO _x	CO	VOC
3.19	9.51	25.94	9.40	34.33

The above table indicates that emission increases of PM₁₀, SO₂, NO_x, CO, and VOC are not over the PSD significance levels. Therefore, PSD review on the Vacuum Tower Unit project is not required.

Estimated emissions from the Lake Charles Crude Oil Refinery in tons per year are as follows:

<u>Pollutant</u>	<u>Before</u>	<u>After</u>	<u>Change</u>
PM ₁₀	14.50	17.25	+ 2.75
SO ₂	33.41	40.63	+ 7.22
NO _x	86.33	109.09	+ 22.76
CO	114.34	122.65	+ 8.31
VOC	131.67	133.66	+ 1.99

**AIR PERMIT BRIEFING SHEET
AIR PERMITS DIVISION
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Lake Charles Crude Oil Refinery
Agency Interest No. 3585
Calcasieu Refining Company
Lake Charles, Calcasieu Parish, Louisiana**

VOC LAC 33:III Chapter 51 Toxic Air Pollutants (TAPs):

Pollutant	Before	After	Change
Acetaldehyde	< 0.01	< 0.01	-
Benzene	8.33	8.33	-
Ethyl benzene	0.70	0.70	-
Formaldehyde	0.16	0.18	+ 0.02
n-Hexane	5.26	5.84	+ 0.58
Methanol	< 0.01	< 0.01	-
Naphthalene	2.09	2.09	-
Phenol	< 0.01	< 0.01	-
Polynuclear Aromatic Hydrocarbons	0.13	0.13	-
Toluene	3.29	3.29	-
Xylene (mixed isomers)	2.78	2.78	-
Total	22.74	23.34	+ 0.60

Other VOC (TPY):

110.32

IV. Type of Review

This permit was reviewed for compliance with 40 CFR 70, the Louisiana Air Quality Regulations, New Source Performance Standards (NSPS), and National Emission Standards for Hazardous Air Pollutants (NESHAP). PSD review does not apply.

This facility is a minor source of toxic air pollutants (TAPs) pursuant to LAC 33:III.Chapter 51.

V. Credible Evidence

Notwithstanding any other provisions of any applicable rule or regulation or requirement of this permit that state specific methods that may be used to assess compliance with applicable requirements, pursuant to 40 CFR Part 70 and EPA's Credible Evidence Rule, 62 Fed. Reg. 8314 (Feb. 24, 1997), any credible evidence or information relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed shall be considered for purposes of Title V compliance certifications. Furthermore, for purposes of establishing whether or not a person has violated or is in violation of any emissions limitation or standard or permit condition, nothing in this permit shall preclude the use, including the exclusive use, by any person of any such credible evidence or information.

AIR PERMIT BRIEFING SHEET
AIR PERMITS DIVISION
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

Lake Charles Crude Oil Refinery
Agency Interest No. 3585
Calcasieu Refining Company
Lake Charles, Calcasieu Parish, Louisiana

VI. Public Notice

A notice requesting public comments on the proposed permits was published in *The Advocate*, Baton Rouge and the *Lake Charles American Press*, Lake Charles on [date], 2007. In addition, copies of the public notice were sent to individuals included in the LDEQ mailing list on [date], 2007. The proposed permits were also submitted to US EPA Region VI on [date], 2007 for review. All comments will be considered prior to a final permit decision.

VII. Effects on Ambient Air

Dispersion Model(s) Used: None

Pollutant	Time Period	Calculated Maximum Ground Level Concentration	Louisiana Toxic Air Pollutant Ambient Air Quality Standard or (National Ambient Air Quality Standard {NAAQS})

VIII. General Condition XVII Activities

Work Activity	Schedule	Emission Rates – tons/year
Changing Filters	Weekly	VOC: 0.10
Clearing Process Lines and Associated Equipment	Monthly	VOC: 0.20
Instrumentation Maintenance	Weekly	VOC: 0.50
Pump Maintenance	Monthly	VOC: 0.50
Sampling	Daily	VOC: 0.50
Tank Gauging	Daily	VOC: 0.50
Valve Maintenance	Monthly	VOC: 0.70
Inspections on Floating Roof Tanks	Annually	VOC: 2.50
Repair and Maintenance on Control Equipment (e.g., Rupture Discs)	Annually	VOC: 1.00
Removal of API Sludge	Annually	VOC: 0.30
Bio-Solids Application	Monthly	VOC: 0.20
Weekly Testing of Emergency Firewater Pump, P-174	Weekly	PM ₁₀ : 0.19, SO ₂ : 0.18, NO _x : 2.71, CO: 0.59, VOC: 0.22

**AIR PERMIT BRIEFING SHEET
AIR PERMITS DIVISION
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Lake Charles Crude Oil Refinery
Agency Interest No. 3585
Calcasieu Refining Company
Lake Charles, Calcasieu Parish, Louisiana**

Work Activity	Schedule	Emission Rates – tons/year
Weekly Testing of Emergency Stormwater Pump, P-402	Weekly	PM ₁₀ : 0.06, SO ₂ : 0.06, NO _x : 0.88, CO: 0.19, VOC: 0.07
Weekly Testing of Emergency Electrical Generator, EG-100	Weekly	PM ₁₀ : 0.27, SO ₂ : 0.26, NO _x : 3.88, CO: 0.84, VOC: 0.31

IX. Insignificant Activities

ID No.	Description	Citation
T-01	Storage Tank (Diesel), 500 gal	[LAC 33:III.501.B.5.A.3]
T-02	Storage Tank (Diesel), 200 gal	[LAC 33:III.501.B.5.A.2]
T-03	Storage Tank (Diesel), 200 gal	[LAC 33:III.501.B.5.A.2]
TK-106	Storage Tank (Desalter Water Make-up), 4,200 gal	[LAC 33:III.501.B.5.A.3]
D-150	Storage Tank (Dye), 1,500 gal	[LAC 33:III.501.B.5.A.3]
D-151	Storage Tank (Pour Point), 5,800 gal	[LAC 33:III.501.B.5.A.3]
TK-250	Storage Tank (Neutralizer), 1,000 gal	[LAC 33:III.501.B.5.A.3]
TK-251	Storage Tank (Filmer), 1,000 gal	[LAC 33:III.501.B.5.A.3]
TK-252	Storage Tank (Emulsion Breaker), 1,000 gal	[LAC 33:III.501.B.5.A.3]
TK-253	Storage Tank (Anti-Foulant), 1,000 gal	[LAC 33:III.501.B.5.A.3]
TK-254	Storage Tank (Polymer), 1,500 gal	[LAC 33:III.501.B.5.A.3]
TK-255	Storage Tank (Sulfide), 1,000 gal	[LAC 33:III.501.B.5.A.4]
TK-451	Storage Tank (Phosphoric Acid), 1,000 gal	[LAC 33:III.501.B.5.A.4]
TK-452	Storage Tank (Ammonium Hydroxide), 1,000 gal	[LAC 33:III.501.B.5.A.4]
TK-453	Storage Tank (Anti-Foam), 1,000 gal	[LAC 33:III.501.B.5.A.4]
	Vapor Degreaser, 55 gal	[LAC 33:III.501.B.5.A.2]
	Laboratory Emissions	[LAC 33:III.501.B.5.A.6]

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

Lake Charles Crude Oil Refinery
 Agency Interest No. 3585
 Calcasieu Refining Company
 Lake Charles, Calcasieu Parish, Louisiana

X. Table 1. Applicable Louisiana and Federal Air Quality Requirements

ID No.	Description	LAC 33:III.Chapter																	
		5 ^A	9	11	13	15	2103	2107	2108	2109	2111	2113	2122	22	29*	51*	53*	56	59*
GRP004	Lake Charles Crude Oil Refinery	1	1	1							1							1	1
EQT007	32-G-3201 - Emergency Diesel Generator			1	1	1													
EQT008	50-G-5001 - Emergency Generator No. 1			1	1	1													
EQT009	50-G-5002 - Emergency Generator No. 2																		
EQT010	50-TK-5001 - Diesel Storage Tank For Emergency Generator No. 1						2												
EQT011	50-TK-5002 - Diesel Storage Tank For Emergency Generator No. 2						2												
EQT012	CT-100 - Cooling Tower																		
EQT013	D-315 - Storage Tank (Sulfuric Acid)																		
EQT014	F-300 - Marine Vapor Recovery Unit			1	1	1													
EQT015	F-400 - Flare			1	1	1													
EQT016	H-102 - Steam Boiler No. 2			1	1	1													
EQT017	H-103 - Steam Boiler No. 3 (Clever-Brooks Unit)			1	1	1													
EQT018	H-201 - Heater			1	1	1													
EQT019	H-204 - No. 2 CDU Heater			1	1	1													
EQT020	H-205 - Stabilizer Reboiler			1	1	1													
EQT021	H-501 - No. 5 CDU Heater			1	1	1													
EQT023	MD-100 - Marine Docks (Barge Loading)								3										
EQT024	MD-200 - Marine Docks (Haymark Dock, Barge Loading)								1										
EQT025	TK-170 - Storage Tank (Spent Caustic)																		
EQT026	TK-180 - pH Adjustment Tank																		
EQT027	TK-300 - Crude Oil Storage Tank						1												
EQT028	TK-301 - Storage Tank (IPP Diesel/Kerosene)						2												
EQT029	TK-302 - Mineral Spirits Storage Tank						1												
EQT030	TK-303 - Storage Tank (Naphtha)						1												

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

Lake Charles Crude Oil Refinery
 Agency Interest No. 3585
 Calcasieu Refining Company
 Lake Charles, Calcasieu Parish, Louisiana

X. Table 1. Applicable Louisiana and Federal Air Quality Requirements

ID No.	Description	LAC 33:III. Chapter																	
		5 ^A	9	11	13	15	2103	2107	2108	2109	2111	2113	2122	22	29*	51*	53*	56	59*
EQT031	TK-304 - Storage Tank (IPP Diesel/Kerosene)						2												
EQT032	TK-305 - Storage Tank (Gas Oil/Reduced Crude)						2												
EQT033	TK-306 - Storage Tank (IPP Diesel/Kerosene)						2												
EQT034	TK-307 - Storage Tank (IPP Diesel/Kerosene)						2												
EQT035	TK-308 - Storage Tank (Gas Oil/Reduced Crude)						2												
EQT036	TK-309 - Storm Water / Waste Water Storage Tank						1												
EQT037	TK-310 - Waste Water Storage Tank						1												
EQT038	TK-311 - Crude Oil Storage Tank						1												
EQT039	TK-312 - Crude Oil Storage Tank						1												
EQT040	TK-313 - Storage Tank (Naphtha/Kerosene/Crude)						1												
EQT041	TK-314 - Storage Tank (IPP Diesel/Kerosene)						2												
EQT042	TK-315 - Storage Tank (IPP Diesel/Kerosene)						2												
EQT043	TK-316 - Storage Tank (Naphtha)						1												
EQT044	TK-317 - Storage Tank (Reduced Crude/Gas Oil)						2												
EQT045	TK-318 - Storage Tank (IPP Diesel/Kerosene)						2												
EQT046	TK-319 - Storage Tank (IPP Diesel/Kerosene)						2												
EQT047	TK-450 - Storage Tank (Emulsion Breaker)																		

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

Lake Charles Crude Oil Refinery
 Agency Interest No. 3585
 Calcasieu Refining Company
 Lake Charles, Calcasieu Parish, Louisiana

X. Table 1. Applicable Louisiana and Federal Air Quality Requirements

ID No.	Description	LAC 33:III.Chapter																		
		5 [▲]	9	11	13	15	2103	2107	2108	2109	2111	2113	2122	22	29*	51*	53*	56	59*	
EQT048	TR-100 - Truck Rack (Truck Loading)							1												
EQT049	WWTC-100 - Wastewater Treatment And Collection								2											
EQT051	Vacuum Tower Unit Reboiler			1	1	1														
FUG007	FUG - Facility Fugitives										1		1							

* The regulations indicated above are State Only regulations.

▲ All LAC 33:III.Chapter 5 citations are federally enforceable including LAC 33:III.501.C.6 citations, except when the requirement found in the "Specific Requirements" report specifically states that the regulation is State Only.

KEY TO MATRIX

- 1 -The regulations have applicable requirements that apply to this particular emission source.
- The emission source may have an exemption from control stated in the regulation. The emission source may not have to be controlled but may have monitoring, recordkeeping, or reporting requirements.
- 2 -The regulations have applicable requirements that apply to this particular emission source but the source is currently exempt from these requirements due to meeting a specific criterion, such as it has not been constructed, modified or reconstructed since the regulations have been in place. If the specific criteria changes the source will have to comply at a future date.
- 3 -The regulations apply to this general type of emission source (i.e. vents, furnaces, towers, and fugitives) but do not apply to this particular emission source.

Blank - The regulations clearly do not apply to this type of emission source.

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

Lake Charles Crude Oil Refinery
Agency Interest No. 3585
Calcasieu Refining Company
Lake Charles, Calcasieu Parish, Louisiana

KEY TO MATRIX

- 1 -The regulations have applicable requirements that apply to this particular emission source.
- The emission source may have an exemption from control stated in the regulation. The emission source may not have to be controlled but may have monitoring, recordkeeping, or reporting requirements.
- 2 -The regulations have applicable requirements that apply to this particular emission source but the source is currently exempt from these requirements due to meeting a specific criterion, such as it has not been constructed, modified or reconstructed since the regulations have been in place. If the specific criteria changes the source will have to comply at a future date.
- 3 -The regulations apply to this general type of emission source (i.e. vents, furnaces, towers, and fugitives) but do not apply to this particular emission source.

Blank - The regulations clearly do not apply to this type of emission source.

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

Lake Charles Crude Oil Refinery
 Agency Interest No. 3585
 Calcasieu Refining Company
 Lake Charles, Calcasieu Parish, Louisiana

XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source

ID No:	Requirement	Notes
EQT010, EQT011	NSPS Subpart Kb – Volatile Organic Liquid Storage Vessels [40 CFR 60.110a through 11.5a]	Exempt – Vapor pressure is less than 1.0 psia.
EQT012	Storage of Volatile Organic Compounds [LAC 33:III.2103] NESHAP Subpart Q – Industrial Process Cooling Towers [40 CFR 63.400]	Exempt – Vapor pressure is less than 1.5 psia. Does not apply – Does not use chromium-based water treatment chemicals.
EQT014	Compliance Assurance Monitoring [40 CFR 64.2]	Exempt – Comply with NSPS Subpart A.
EQT023	Marine Vapor Recovery [LAC 33:III.2108]	Does not apply – Uncontrolled VOC emissions < 100 TPY.
EQT028, EQT031, EQT032, EQT033, EQT034, EQT035	NSPS Subpart K – Storage Vessels for Petroleum Liquids [40 CFR 60.110 through 113]	Exempt – Vapor pressure is less than 1.0 psia.
EQT041, EQT042, EQT045	Storage of Volatile Organic Compounds [LAC 33:III.2103] NSPS Subpart Ka – Storage Vessels for Petroleum Liquids [40 CFR 60.110a through 11.5a]	Exempt – Vapor pressure is less than 1.5 psia. Exempt – Vapor pressure is less than 1.0 psia.
EQT044, EQT046	Storage of Volatile Organic Compounds [LAC 33:III.2103] NSPS Subpart Kb – Volatile Organic Liquid Storage Vessels [40 CFR 60.110a through 11.5a]	Exempt – Vapor pressure is less than 1.5 psia. Exempt – Vapor pressure is less than 1.0 psia.
EQT049	Storage of Volatile Organic Compounds [LAC 33:III.2103] Oil/Water Separation [LAC 33:III.2109] NESHAP Subpart FF – Benzene Waste Operations [40 CFR 61.342]	Exempt – Vapor pressure is less than 1.5 psia. Exempt – True vapor pressure (VOC) < 0.5 psia. Exempt – Total annual benzene waste quality from the facility < 10 Mg.

The above table provides explanation for both the exemption status and non-applicability of a source cited by 1, 2 or 3 in the matrix presented in Section X (Table 1) of this permit.

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

Lake Charles Crude Oil Refinery
 Agency Interest No. 3585
 Calcasieu Refining Company
 Lake Charles, Calcasieu Parish, Louisiana

XII. Equipment List			
Emission Point/Identifier	Description	Note	
MD-100 (Marine Docks)	No. 1 Dock (5 Loading Stations)		
	No. 2 Dock (2 Loading Arms)		
MD-200 (Marine Docks)	Barges		
	No. 3 Dock		
	No. 4 Dock		
	Barges		
TR-100 (Truck Loading)	LPG Vapor Return Line		
	IPP Loading Stations		
	Tanker Trucks		
	Marine Docks		
F-300 (Flare)	Pressure Safety Valves		
F-400 (Flare)	Atmospheric Distillation Units		
	Other Distillation Units		
WWTC-100	Natural Gas Purge		
	Drains		
	Oil-Water Separator		
	Equalization Tank (TK-400)		
	Dissolved Air Floatation Unit		
	Biological Treatment System		

40 CFR PART 70 GENERAL CONDITIONS

- A. The term of this permit shall be five (5) years from date of issuance. An application for a renewal of this 40 CFR Part 70 permit shall be submitted to the administrative authority no later than six months prior to the permit expiration date. Should a complete permit application not be submitted six months prior to the permit expiration date, a facility's right to operate is terminated pursuant to 40 CFR Section 70.7(c)(ii). Operation may continue under the conditions of this permit during the period of the review of the application for renewal. [LAC 33:III.507.E.1, E.3, E.4, reference 40 CFR 70.6(a)(2)]
- B. The conditions of this permit are severable; and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby. [Reference 40 CFR 70.6(a)(5)]
- C. Permittee shall comply with all conditions of the 40 CFR Part 70 permit. Any permit noncompliance constitutes a violation of the Clean Air Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. [LAC 33:III.507.B.2, reference 40 CFR 70.6(a)(6)(i) & (iii)]
- D. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. [Reference 40 CFR 70.6(a)(6)(ii)]
- E. This permit does not convey any property rights of any sort, or an exclusive privilege. [Reference 40 CFR 70.6(a)(6)(iv)]
- F. The permittee shall furnish to the permitting authority, within a reasonable time, any information that the permitting authority may request in writing to determine whether cause exists for modifying, revoking, and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the permitting authority copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality. A claim of confidentiality does not relieve the permittee of the requirement to provide the information. [LAC 33:III.507.B.2, 517.F, reference 40 CFR 70.6(a)(6)(v)]
- G. Permittee shall pay fees in accordance with LAC 33:III.Chapter 2 and 40 CFR Section 70.6(a)(7). [LAC 33:III.501.C.2, reference 40 CFR 70.6(a)(7)]
- H. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the permitting authority or authorized representative to perform the following:
1. enter upon the permittee's premises where a 40 CFR Part 70 source is located or emission-related activity is conducted, or where records must be kept under the conditions of the permit [LAC 33:III.507.H.2, reference 40 CFR 70.6(c)(2)(i)];
 2. have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit [LAC 33:III.507.H.2, reference 40 CFR 70.6(c)(2)(ii)];
 3. inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit [LAC 33:III.507.H.2, reference 40 CFR 70.6(c)(2)(iii)]; and

40 CFR PART 70 GENERAL CONDITIONS

4. as authorized by the Clean Air Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. [LAC 33:III.507.H.2, reference 40 CFR 70.6(c)(2)(iv)]
- I. All required monitoring data and supporting information shall be kept available for inspection at the facility or alternate location approved by the agency for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application. Supporting information includes calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and all reports required by the permit.
[Reference 40 CFR 70.6(a)(3)(ii)(B)]
- J. Records of required monitoring shall include the following:
1. the date, place as defined in the permit, and time of sampling or measurements;
 2. the date(s) analyses were performed;
 3. the company or entity that performed the analyses;
 4. the analytical techniques or methods used;
 5. the results of such analyses; and
 6. the operating conditions as existing at the time of sampling or measurement.
- [Reference 40 CFR 70.6(a)(3)(ii)(A)]
- K. Permittee shall submit at least semiannually, reports of any required monitoring, clearly identifying all instances of deviations from permitted monitoring requirements, certified by a responsible company official. For previously reported deviations, in lieu of attaching the individual deviation reports, the semiannual report may clearly reference the communication(s)/correspondence(s) constituting the prior report, including the date the prior report was submitted. The semiannual reports shall be submitted to the Office of Environmental Compliance, Enforcement Division by March 31 for the preceding period encompassing July through December and September 30 for the preceding period encompassing January through June. Any quarterly deviation report required to be submitted by March 31 or September 30 in accordance with Part 70 General Condition R may be consolidated with the semi-annual reports required by this general condition as long as the report clearly indicates this and all required information is included and clearly delineated in the consolidated report. [LAC 33:III.507.H, reference 40 CFR 70.6(a)(3)(iii)(A)]
- L. The permittee shall submit at least semiannual reports on the status of compliance pursuant to 40 CFR Section 70.5 (c) (8) and a progress report on any applicable schedule of compliance pursuant to 40 CFR Section 70.6 (c) (4). [LAC 33:III.507.H.1, reference 40 CFR 70.6(c)(4)]
- M. Compliance certifications per LAC 33:III.507.H.5 shall be submitted to the Administrator as well as the permitting authority. For previously reported compliance deviations, in lieu of attaching the individual deviation reports, the annual report may clearly reference the communication(s)/correspondence(s) constituting the prior report, including the date the prior report was submitted. The compliance certifications shall be submitted to the Office of Environmental Compliance, Enforcement Division by March 31 for the preceding calendar year. [LAC 33:III.507.H.5, reference 40 CFR 70.6(c)(5)(iv)]
- N. If the permittee seeks to reserve a claim of an affirmative defense as provided in LAC 33:III.507.J.2, the permittee shall, in addition to any emergency or upset provisions in any applicable regulation, notify the permitting authority within 2 working days of the time when emission limitations were exceeded due to the occurrence of an upset. In the event of an upset, as defined under LAC 33:III.507.J, which results in excess emissions, the permittee shall demonstrate through properly signed, contemporaneous operating logs, or other relevant evidence that: 1) an

40 CFR PART 70 GENERAL CONDITIONS

emergency occurred and the cause was identified; 2) the permitted facility was being operated properly at the time; and 3) during the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standard or requirement of the permit. [LAC 33:III.507.J.2, reference 40 CFR 70.6(g)(3)(iv) & (i-iii)]

- O. Permittee shall maintain emissions at a level less than or equal to that provided for under the allowances that the 40 CFR Part 70 source lawfully holds under Title IV of the Clean Air Act or the regulations promulgated thereunder. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the acid rain program, provided that such increases do not require a permit revision under any other applicable requirement. No limit shall be placed on the number of allowances held by the source. The source may not, however, use allowances as a defense to noncompliance with any other applicable requirement. Any such allowance shall be accounted for according to the procedures established in regulations promulgated under Title IV of the Clean Air Act. [Reference 40 CFR 70.6(a)(4)]

- P. Any permit issued pursuant to 40 CFR Part 70 may be subject to reopening prior to the expiration of the permit for any of the conditions specified in 40 CFR Section 70.7(f) or LAC 33:III.529. [LAC 33:III.529.A-B, reference 40 CFR 70.7(f)]

- Q. Permittee may request an administrative amendment to the permit to incorporate test results from compliance testing if the following criteria are met:
 - 1. the changes are a result of tests performed upon start-up of newly constructed, installed, or modified equipment or operations;
 - 2. increases in permitted emissions will not exceed five tons per year for any regulated pollutant;
 - 3. increases in permitted emissions of Louisiana toxic air pollutants or of federal hazardous air pollutants would not constitute a modification under LAC 33:III. Chapter 51 or under Section 112 (g) of the Clean Air Act;
 - 4. changes in emissions would not require new source review for prevention of significant deterioration or nonattainment and would not trigger the applicability of any federally applicable requirement;
 - 5. changes in emissions would not qualify as a significant modification; and
 - 6. the request is submitted no later than 12 months after commencing operation. [LAC 33:III.523.A, reference 40 CFR 70.7(d)]

- R. Permittee shall submit prompt reports of all permit deviations as specified below to the Office of Environmental Compliance, Enforcement Division. All such reports shall be certified by a responsible official in accordance with 40 CFR 70.5(d).
 - 1. A written report shall be submitted within 7 days of any emission in excess of permit requirements by an amount greater than the Reportable Quantity established for that pollutant in LAC 33.I.Chapter 39.
 - 2. A written report shall be submitted within 7 days of the initial occurrence of any emission in excess of permit requirements, regardless of the amount, where such emission occurs over a period of seven days or longer.

40 CFR PART 70 GENERAL CONDITIONS

3. A written report shall be submitted quarterly to address all permit deviations not included in paragraphs 1 or 2 above. Unless required by an applicable reporting requirement, a written report is not required during periods in which there is no deviation. The quarterly deviation reports submitted on March 31 and September 30 may be consolidated with the semi-annual reports required by Part 70 General Condition K as long as the report clearly indicates this and all required information is included and clearly delineated in the consolidated report. For previously reported permit deviations, in lieu of attaching the individual deviation reports, the quarterly report may clearly reference the communication(s)/correspondence(s) constituting the prior report, including the date the prior report was submitted. The schedule for submittal of quarterly reports shall be no later than the dates specified below for any permit deviations occurring during the corresponding specified calendar quarter:

- a. Report by June 30 to cover January through March
- b. Report by September 30 to cover April through June
- c. Report by December 31 to cover July through September
- d. Report by March 31 to cover October through December

4. Any written report submitted in advance of the timeframes specified above, in accordance with an applicable regulation, may serve to meet the reporting requirements of this condition provided such reports are certified in accordance with 40 CFR 70.5(d) and contain all information relevant to the permit deviation. Reporting under this condition does not relieve the permittee from the reporting requirements of any applicable regulation, including LAC 33.I.Chapter 39, LAC 33.III.Chapter 9, and LAC 33.III.5107. [Reference 40 CFR 70.6(a)(3)(iii)(B)]

S. Permittee shall continue to comply with applicable requirements on a timely basis, and will meet on a timely basis applicable requirements that become effective during the permit term. [Reference 40 CFR 70.5(c)(8)(iii)]

T. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:

- 1. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156;
- 2. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158;
- 3. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161;
- 4. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with recordkeeping requirements pursuant to 40 CFR 82.166. ("MVAC-like appliance" as defined at 40 CFR 82.152);
- 5. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to 40 CFR 82.156; and
- 6. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166. [Reference 40 CFR 82, Subpart F]

40 CFR PART 70 GENERAL CONDITIONS

- U. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.

The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant. [Reference 40 CFR 82, Subpart B]

- V. Data availability for continuous monitoring or monitoring to collect data at specific intervals: Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities (including calibration checks and required zero and span adjustments), the permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the emissions unit is operating. For purposes of reporting monitoring deviations under Part 70 General Conditions K and R, and unless otherwise provided for in the Specific Requirements (or Table 3) of this permit, the minimum degree of data availability shall be at least 90% (based on a monthly average) of the operating time of the emissions unit or activity being monitored. This condition does not apply to Leak Detection and Repair (LDAR) programs for fugitive emissions (e.g., 40 CFR 60 Subpart VV, 40 CFR 63 Subpart H).

**LOUISIANA AIR EMISSION PERMIT
GENERAL CONDITIONS**

- I. This permit is issued on the basis of the emissions reported in the application for approval of emissions and in no way guarantees that the design scheme presented will be capable of controlling the emissions to the type and quantities stated. Failure to install, properly operate and/or maintain all proposed control measures and/or equipment as specified in the application and supplemental information shall be considered a violation of the permit and LAC 33:III.501. If the emissions are determined to be greater than those allowed by the permit (e.g. during the shakedown period for new or modified equipment) or if proposed control measures and/or equipment are not installed or do not perform according to design efficiency, an application to modify the permit must be submitted. All terms and conditions of this permit shall remain in effect unless and until revised by the permitting authority.

- II. The permittee is subject to all applicable provisions of the Louisiana Air Quality Regulations. Violation of the terms and conditions of the permit constitutes a violation of these regulations.

- III. The Emission Rates for Criteria Pollutants, Emission Rates for TAP/HAP & Other Pollutants, and Specific Requirements sections or, where included, Emission Inventory Questionnaire sheets establish the emission limitations and are a part of the permit. Any operating limitations are noted in the Specific Requirements or, where included, Tables 2 and 3 of the permit. The synopsis is based on the application and Emission Inventory Questionnaire dated December 14, 2006, along with supplemental information dated January 4, 2007.

- IV. This permit shall become invalid, for the sources not constructed, if:
 - A. Construction is not commenced, or binding agreements or contractual obligations to undertake a program of construction of the project are not entered into, within two (2) years (18 months for PSD permits) after issuance of this permit, or;
 - B. If construction is discontinued for a period of two (2) years (18 months for PSD permits) or more.

The administrative authority may extend this time period upon a satisfactory showing that an extension is justified.

This provision does not apply to the time period between construction of the approved phases of a phased construction project. However, each phase must commence construction within two (2) years (18 months for PSD permits) of its projected and approved commencement date.

- V. The permittee shall submit semiannual reports of progress outlining the status of construction, noting any design changes, modifications or alterations in the construction schedule which have or may have an effect on the emission rates or ambient air quality levels. These reports shall continue to be submitted until such time as construction is certified as being complete. Furthermore, for any significant change in the design, prior approval shall be obtained from the Office of Environmental Services, Air Permits Division.

- VI. The permittee shall notify the Department of Environmental Quality, Office of Environmental Services, Air Permits Division within ten (10) calendar days from the date that construction is certified as complete and the estimated date of start-up of operation. The appropriate Regional Office shall also be so notified within the same time frame.

**LOUISIANA AIR EMISSION PERMIT
GENERAL CONDITIONS**

- VII. Any emissions testing performed for purposes of demonstrating compliance with the limitations set forth in paragraph III shall be conducted in accordance with the methods described in the Specific Conditions and, where included, Tables 1, 2, 3, 4, and 5 of this permit. Any deviation from or modification of the methods used for testing shall have prior approval from the Office of Environmental Assessment, Air Quality Assessment Division.

- VIII. The emission testing described in paragraph VII above, or established in the specific conditions of this permit, shall be conducted within sixty (60) days after achieving normal production rate or after the end of the shakedown period, but in no event later than 180 days after initial start-up (or restart-up after modification). The Office of Environmental Assessment, Air Quality Assessment Division shall be notified at least (30) days prior to testing and shall be given the opportunity to conduct a pretest meeting and observe the emission testing. The test results shall be submitted to the Air Quality Assessment Division within sixty (60) days after the complete testing. As required by LAC 33:III.913, the permittee shall provide necessary sampling ports in stacks or ducts and such other safe and proper sampling and testing facilities for proper determination of the emission limits.

- IX. The permittee shall, within 180 days after start-up and shakedown of each project or unit, report to the Office of Environmental Compliance, Enforcement Division any significant difference in operating emission rates as compared to those limitations specified in paragraph III. This report shall also include, but not be limited to, malfunctions and upsets. A permit modification shall be submitted, if necessary, as required in Condition I.

- X. The permittee shall retain records of all information resulting from monitoring activities and information indicating operating parameters as specified in the specific conditions of this permit for a minimum of at least five (5) years.

- XI. If for any reason the permittee does not comply with, or will not be able to comply with, the emission limitations specified in this permit, the permittee shall provide the Office of Environmental Compliance, Enforcement Division with a written report as specified below.
 - A. A written report shall be submitted within 7 days of any emission in excess of permit requirements by an amount greater than the Reportable Quantity established for that pollutant in LAC 33.I.Chapter 39.
 - B. A written report shall be submitted within 7 days of the initial occurrence of any emission in excess of permit requirements, regardless of the amount, where such emission occurs over a period of seven days or longer.
 - C. A written report shall be submitted quarterly to address all emission limitation exceedances not included in paragraphs A or B above. The schedule for submittal of quarterly reports shall be no later than the dates specified below for any emission limitation exceedances occurring during the corresponding specified calendar quarter:
 - 1. Report by June 30 to cover January through March
 - 2. Report by September 30 to cover April through June
 - 3. Report by December 31 to cover July through September
 - 4. Report by March 31 to cover October through December

**LOUISIANA AIR EMISSION PERMIT
GENERAL CONDITIONS**

D. Each report submitted in accordance with this condition shall contain the following information:

1. Description of noncomplying emission(s);
2. Cause of noncompliance;
3. Anticipated time the noncompliance is expected to continue, or if corrected, the duration of the period of noncompliance;
4. Steps taken by the permittee to reduce and eliminate the noncomplying emissions; and
5. Steps taken by the permittee to prevent recurrences of the noncomplying emissions.

E. Any written report submitted in advance of the timeframes specified above, in accordance with an applicable regulation, may serve to meet the reporting requirements of this condition provided all information specified above is included. For Part 70 sources, reports submitted in accordance with Part 70 General Condition R shall serve to meet the requirements of this condition provided all specified information is included. Reporting under this condition does not relieve the permittee from the reporting requirements of any applicable regulation, including LAC 33.I.Chapter 39, LAC 33.III.Chapter 9, and LAC 33.III.5107.

XII. Permittee shall allow the authorized officers and employees of the Department of Environmental Quality, at all reasonable times and upon presentation of identification, to:

- A. Enter upon the permittee's premises where regulated facilities are located, regulated activities are conducted or where records required under this permit are kept;
- B. Have access to and copy any records that are required to be kept under the terms and conditions of this permit, the Louisiana Air Quality Regulations, or the Act;
- C. Inspect any facilities, equipment (including monitoring methods and an operation and maintenance inspection), or operations regulated under this permit; and
- D. Sample or monitor, for the purpose of assuring compliance with this permit or as otherwise authorized by the Act or regulations adopted thereunder, any substances or parameters at any location.

XIII. If samples are taken under Section XII.D above, the officer or employee obtaining such samples shall give the owner, operator or agent in charge a receipt describing the sample obtained. If requested prior to leaving the premises, a portion of each sample equal in volume or weight to the portion retained shall be given to the owner, operator or agent in charge. If an analysis is made of such samples, a copy of the analysis shall be furnished promptly to the owner, operator or agency in charge.

XIV. The permittee shall allow authorized officers and employees of the Department of Environmental Quality, upon presentation of identification, to enter upon the permittee's premises to investigate potential or alleged violations of the Act or the rules and regulations adopted thereunder. In such investigations, the permittee shall be notified at the time entrance is requested of the nature of the suspected violation. Inspections under this subsection shall be limited to the aspects of alleged violations. However, this shall not in any way preclude prosecution of all violations found.

**LOUISIANA AIR EMISSION PERMIT
GENERAL CONDITIONS**

- XV. The permittee shall comply with the reporting requirements specified under LAC 33:III.919 as well as notification requirements specified under LAC 33:III.927.
- XVI. In the event of any change in ownership of the source described in this permit, the permittee and the succeeding owner shall notify the Office of Environmental Services, Air Permits Division, within ninety (90) days after the event, to amend this permit.
- XVII. Very small emissions to the air resulting from routine operations, that are predictable, expected, periodic, and quantifiable and that are submitted by the permitted facility and approved by the Air Permits Division are considered authorized discharges. Approved activities are noted in the General Condition XVII Activities List of this permit. To be approved as an authorized discharge, these very small releases must:
 - 1. Generally be less than 5 TPY
 - 2. Be less than the minimum emission rate (MER)
 - 3. Be scheduled daily, weekly, monthly, etc., or
 - 4. Be necessary prior to plant startup or after shutdown [line or compressor pressuring/depressuring for example]

These releases are not included in the permit totals because they are small and will have an insignificant impact on air quality. This general condition does not authorize the maintenance of a nuisance, or a danger to public health and safety. The permitted facility must comply with all applicable requirements, including release reporting under LAC 33:I.3901.

- XVIII. Provisions of this permit may be appealed in writing pursuant to La. R.S. 30:2024(A) within 30 days from receipt of the permit. Only those provisions specifically appealed will be suspended by a request for hearing, unless the secretary or the assistant secretary elects to suspend other provisions as well. Construction cannot proceed except as specifically approved by the secretary or assistant secretary. A request for hearing must be sent to the following:

Attention: Office of the Secretary, Legal Services Division
 La. Dept. of Environmental Quality
 Post Office Box 4302
 Baton Rouge, Louisiana 70821-4302

- XIX. Certain Part 70 general conditions may duplicate or conflict with state general conditions. To the extent that any Part 70 conditions conflict with state general conditions, then the Part 70 general conditions control. To the extent that any Part 70 general conditions duplicate any state general conditions, then such state and Part 70 provisions will be enforced as if there is only one condition rather than two conditions.

INVENTORIES
AI ID: 3585 - Calcasieu Refining Co - Lake Charles Crude Oil Refinery
Activity Number: PER20060006
Permit Number: 0520-00050-V6
Air - Title V Regular Permit Minor Mod

Subject Item Inventory:

ID	Description	Tank Volume	Max. Operating Rate	Normal Operating Rate	Contents	Operating Time
EQT007	32-G-3201 - EMERGENCY DIESEL GENERATOR		470 horsepower			312 hr/yr (All Year)
EQT008	50-G-5001 - EMERGENCY GENERATOR NO. 1		2680 horsepower	2.5 MW		104 hr/yr (All Year)
EQT009	50-G-5002 - EMERGENCY GENERATOR NO. 2		2680 horsepower	2.5 MW		104 hr/yr (All Year)
EQT010	50-TK-5001 - DIESEL STORAGE TANK FOR EMERGENCY GENERATOR NO. 1	15000 gallons				8760 hr/yr (All Year)
EQT011	50-TK-5002 - DIESEL STORAGE TANK FOR EMERGENCY GENERATOR NO. 2	15000 gallons				8760 hr/yr (All Year)
EQT012	CT-100 - COOLING TOWER		50000 gallons/day			8760 hr/yr (All Year)
EQT013	D-315 - STORAGE TANK (SULFURIC ACID)	2000 gallons				8760 hr/yr (All Year)
EQT014	F-300 - MARINE VAPOR RECOVERY UNIT		73.9 MM BTU/hr			8760 hr/yr (All Year)
EQT015	F-400 - FLARE		2.12 MM BTU/hr			8760 hr/yr (All Year)
EQT016	H-102 - STEAM BOILER NO. 2		8.4 MM BTU/hr			8760 hr/yr (All Year)
EQT017	H-103 - STEAM BOILER NO. 3 (CLEAVER-BROOKS UNIT)		25.11 MM BTU/hr			8760 hr/yr (All Year)
EQT018	H-201 - HEATER		35 MM BTU/hr			8760 hr/yr (All Year)
EQT019	H-204 - NO. 2 CDU HEATER		110 MM BTU/hr	77000 ft ³ /hr		8760 hr/yr (All Year)
EQT020	H-205 - STABILIZER REBOILER		9.2 MM BTU/hr			8760 hr/yr (All Year)
EQT021	H-501 - NO. 5 CDU HEATER		180 MM BTU/hr	148000 ft ³ /hr		8760 hr/yr (All Year)
EQT023	MD-100 - MARINE DOCKS (BARGE LOADING)	546 million gallons				8760 hr/yr (All Year)
EQT024	MD-200 - MARINE DOCKS (HAYMARK DOCK, BARGE LOADING)	700 million gallons				8760 hr/yr (All Year)
EQT025	TK-170 - STORAGE TANK (SPENT CAUSTIC)	12600 gallons				8760 hr/yr (All Year)
EQT026	TK-180 - pH ADJUSTMENT TANK	4500 gallons				8760 hr/yr (All Year)
EQT027	TK-300 - CRUDE OIL STORAGE TANK	4.2 million gallons		96000 bbl/day		8760 hr/yr (All Year)
EQT028	TK-301 - STORAGE TANK (IPP DIESEL/KEROSENE)	1.3 million gallons				8760 hr/yr (All Year)
EQT029	TK-302 - MINERAL SPIRITS STORAGE TANK	.42 million gallons				8760 hr/yr (All Year)
EQT030	TK-303 - STORAGE TANK (NAPHTHA)	.84 million gallons				8760 hr/yr (All Year)
EQT031	TK-304 - STORAGE TANK (IPP DIESEL/KEROSENE)	.84 million gallons				8760 hr/yr (All Year)
EQT032	TK-305 - STORAGE TANK (GAS OIL/REDUCED CRUDE)	1.68 million gallons				8760 hr/yr (All Year)
EQT033	TK-306 - STORAGE TANK (IPP DIESEL/KEROSENE)	.84 million gallons				8760 hr/yr (All Year)
EQT034	TK-307 - STORAGE TANK (IPP DIESEL/KEROSENE)	.84 million gallons				8760 hr/yr (All Year)
EQT035	TK-308 - STORAGE TANK (GAS OIL/REDUCED CRUDE)	1.26 million gallons				8760 hr/yr (All Year)
EQT036	TK-309 - STORM WATER / WASTE WATER STORAGE TANK	.42 million gallons				8760 hr/yr (All Year)
EQT037	TK-310 - WASTE WATER STORAGE TANK	.42 million gallons				8760 hr/yr (All Year)
EQT038	TK-311 - CRUDE OIL STORAGE TANK	8.4 million gallons		96000 bbl/day		8760 hr/yr (All Year)
EQT039	TK-312 - CRUDE OIL STORAGE TANK	4.2 million gallons		96000 bbl/day		8760 hr/yr (All Year)
EQT040	TK-313 - STORAGE TANK (NAPHTHA/KEROSENE/CRUDE)	4.2 million gallons				8760 hr/yr (All Year)
EQT041	TK-314 - STORAGE TANK (IPP DIESEL/KEROSENE)	4.2 million gallons				8760 hr/yr (All Year)
EQT042	TK-315 - STORAGE TANK (IPP DIESEL/KEROSENE)	.63 million gallons				8760 hr/yr (All Year)

INVENTORIES

AI ID: 3585 - Calcasieu Refining Co - Lake Charles Crude Oil Refinery

Activity Number: PER20060006

Permit Number: 0520-00050-V6

Air - Title V Regular Permit Minor Mod

Subject Item Inventory:

ID	Description	Tank Volume	Max. Operating Rate	Normal Operating Rate	Contents	Operating Time
EQT043	TK-316 - STORAGE TANK (NAPHTHA)	3.44 million gallons				8760 hr/yr (All Year)
EQT044	TK-317 - STORAGE TANK (REDUCED CRUDE/GAS OIL)	5.46 million gallons				8760 hr/yr (All Year)
EQT045	TK-318 - STORAGE TANK (IPP DIESEL/KEROSENE)	3.44 million gallons				8760 hr/yr (All Year)
EQT046	TK-319 - STORAGE TANK (IPP DIESEL/KEROSENE)	3.44 million gallons				8760 hr/yr (All Year)
EQT047	TK-450 - STORAGE TANK (EMULSION BREAKER)	1000 gallons	442 MM gallons/yr			8760 hr/yr (All Year)
EQT048	TR-100 - TRUCK RACK (TRUCK LOADING)					8760 hr/yr (All Year)
EQT049	WWTC-100 - WASTEWATER TREATMENT AND COLLECTION		120 gallons/min	172800 gallons/day		8760 hr/yr (All Year)
EQT050	TK-201 - PRESSURIZED STORAGE TANK	72700 gallons				8760 hr/yr (All Year)
EQT051	H-701 - VACUUM TOWER UNIT REBOILER		76.1 MM BTU/hr			8760 hr/yr (All Year)
FUG007	FUG - FACILITY FUGITIVES					8760 hr/yr (All Year)

Subject Item Groups:

ID	Description	Included Components (from Above)
GRP004	Lake Charles Crude Oil Refinery	EQT17 32-G-3201 - EMERGENCY DIESEL GENERATOR
GRP004	Lake Charles Crude Oil Refinery	EQT8 50-G-5001 - EMERGENCY GENERATOR NO. 1
GRP004	Lake Charles Crude Oil Refinery	EQT9 50-G-5002 - EMERGENCY GENERATOR NO. 2
GRP004	Lake Charles Crude Oil Refinery	EQT10 50-TK-5001 - DIESEL STORAGE TANK FOR EMERGENCY GENERATOR NO. 1
GRP004	Lake Charles Crude Oil Refinery	EQT11 50-TK-5002 - DIESEL STORAGE TANK FOR EMERGENCY GENERATOR NO. 2
GRP004	Lake Charles Crude Oil Refinery	EQT12 CT-100 - COOLING TOWER
GRP004	Lake Charles Crude Oil Refinery	EQT13 D-315 - STORAGE TANK (SULFURIC ACID)
GRP004	Lake Charles Crude Oil Refinery	EQT14 F-300 - MARINE VAPOR RECOVERY UNIT
GRP004	Lake Charles Crude Oil Refinery	EQT15 F-400 - FLARE
GRP004	Lake Charles Crude Oil Refinery	EQT16 H-102 - STEAM BOILER NO. 2
GRP004	Lake Charles Crude Oil Refinery	EQT17 H-103 - STEAM BOILER NO. 3 (CLEAVER-BROOKS UNIT)
GRP004	Lake Charles Crude Oil Refinery	EQT18 H-201 - HEATER
GRP004	Lake Charles Crude Oil Refinery	EQT19 H-204 - NO. 2 CDU HEATER
GRP004	Lake Charles Crude Oil Refinery	EQT20 H-205 - STABILIZER REBOILER
GRP004	Lake Charles Crude Oil Refinery	EQT21 H-501 - NO. 5 CDU HEATER
GRP004	Lake Charles Crude Oil Refinery	EQT23 MD-100 - MARINE DOCKS (BARGE LOADING)
GRP004	Lake Charles Crude Oil Refinery	EQT24 MD-200 - MARINE DOCKS (HAYMARK DOCK, BARGE LOADING)
GRP004	Lake Charles Crude Oil Refinery	EQT25 TK-170 - STORAGE TANK (SPENT CAUSTIC)
GRP004	Lake Charles Crude Oil Refinery	EQT26 TK-180 - pH ADJUSTMENT TANK
GRP004	Lake Charles Crude Oil Refinery	EQT27 TK-300 - CRUDE OIL STORAGE TANK
GRP004	Lake Charles Crude Oil Refinery	EQT28 TK-301 - STORAGE TANK (IPP DIESEL/KEROSENE)
GRP004	Lake Charles Crude Oil Refinery	EQT29 TK-302 - MINERAL SPIRITS STORAGE TANK

INVENTORIES

AI ID: 3585 - Calcasieu Refining Co - Lake Charles Crude Oil Refinery

Activity Number: PER20060006

Permit Number: 0520-00050-V6

Air - Title V Regular Permit Minor Mod

Subject Item Groups:

ID	Description	Included Components (from Above)
GRP004	Lake Charles Crude Oil Refinery	EQT30 TK-303 - STORAGE TANK (NAPHTHA)
GRP004	Lake Charles Crude Oil Refinery	EQT31 TK-304 - STORAGE TANK (IPP DIESEL/KEROSENE)
GRP004	Lake Charles Crude Oil Refinery	EQT32 TK-305 - STORAGE TANK (GAS OIL/REDUCED CRUDE)
GRP004	Lake Charles Crude Oil Refinery	EQT33 TK-306 - STORAGE TANK (IPP DIESEL/KEROSENE)
GRP004	Lake Charles Crude Oil Refinery	EQT34 TK-307 - STORAGE TANK (IPP DIESEL/KEROSENE)
GRP004	Lake Charles Crude Oil Refinery	EQT35 TK-308 - STORAGE TANK (GAS OIL/REDUCED CRUDE)
GRP004	Lake Charles Crude Oil Refinery	EQT36 TK-309 - STORM WATER / WASTE WATER STORAGE TANK
GRP004	Lake Charles Crude Oil Refinery	EQT37 TK-310 - WASTE WATER STORAGE TANK
GRP004	Lake Charles Crude Oil Refinery	EQT38 TK-311 - CRUDE OIL STORAGE TANK
GRP004	Lake Charles Crude Oil Refinery	EQT39 TK-312 - CRUDE OIL STORAGE TANK
GRP004	Lake Charles Crude Oil Refinery	EQT40 TK-313 - STORAGE TANK (NAPHTHA/KEROSENE/CRUDE)
GRP004	Lake Charles Crude Oil Refinery	EQT41 TK-314 - STORAGE TANK (IPP DIESEL/KEROSENE)
GRP004	Lake Charles Crude Oil Refinery	EQT42 TK-315 - STORAGE TANK (IPP DIESEL/KEROSENE)
GRP004	Lake Charles Crude Oil Refinery	EQT43 TK-316 - STORAGE TANK (NAPHTHA)
GRP004	Lake Charles Crude Oil Refinery	EQT44 TK-317 - STORAGE TANK (REDUCED CRUDE/GAS OIL)
GRP004	Lake Charles Crude Oil Refinery	EQT45 TK-318 - STORAGE TANK (IPP DIESEL/KEROSENE)
GRP004	Lake Charles Crude Oil Refinery	EQT46 TK-319 - STORAGE TANK (IPP DIESEL/KEROSENE)
GRP004	Lake Charles Crude Oil Refinery	EQT47 TK-450 - STORAGE TANK (EMULSION BREAKER)
GRP004	Lake Charles Crude Oil Refinery	EQT48 TR-100 - TRUCK RACK (TRUCK LOADING)
GRP004	Lake Charles Crude Oil Refinery	EQT49 WWTC-100 - WASTEWATER TREATMENT AND COLLECTION
GRP004	Lake Charles Crude Oil Refinery	EQT50 TK-201 - PRESSURIZED STORAGE TANK
GRP004	Lake Charles Crude Oil Refinery	EQT51 H-701 - VACUUM TOWER UNIT REBOILER
GRP004	Lake Charles Crude Oil Refinery	FUG7 FUG - FACILITY FUGITIVES

Relationships:

Stack Information:

ID	Velocity (ft/sec)	Flow Rate (cubic ft/min-actual)	Diameter (feet)	Discharge Area (square feet)	Height (feet)	Temperature (oF)
EQT007			1		20	500
EQT008			1		20	500
EQT009			1		20	500
EQT012				5000	30	
EQT013	3.28		3.28		6	
EQT014	35	120402	8.5		50	1800
EQT015	2	17	1.3		100	1800
EQT016	18.8	2490	1		15	400
EQT017	43.86	6268	2		15	435
EQT018	17.9	22810	5.2		66	242

INVENTORIES

AI ID: 3585 - Calcasieu Refining Co - Lake Charles Crude Oil Refinery

Activity Number: PER20060006

Permit Number: 0520-00050-V6

Air - Title V Regular Permit Minor Mod

Stack Information:

ID	Velocity (ft/sec)	Flow Rate (cubic ft/min-actual)	Diameter (feet)	Discharge Area (square feet)	Height (feet)	Temperature (oF)
EQ1019	H-204 - NO. 2 CDU HEATER	13640	5.2		137	490
EQ1020	H-205 - STABILIZER REBOILER	3729	2		88.5	550
EQ1021	H-501 - NO. 5 CDU HEATER	58000	8		175	500
EQ1023	MD-100 - MARINE DOCKS (BARGE LOADING)			5750	32.8	
EQ1024	MD-200 - MARINE DOCKS (HAYMARK DOCK, BARGE LOADING)			5750	32.8	
EQ1025	TK-170 - STORAGE TANK (SPENT CAUSTIC)	3.28	3.28		13	
EQ1026	TK-180 - PH ADJUSTMENT TANK	3.28	3.28		5	
EQ1027	TK-300 - CRUDE OIL STORAGE TANK	3.28	3.28		48	
EQ1028	TK-301 - STORAGE TANK (IPP DIESEL/KEROSENE)	3.28	3.28		48	
EQ1029	TK-302 - MINERAL SPIRITS STORAGE TANK	3.28	3.28		48	
EQ1030	TK-303 - STORAGE TANK (NAPHTHA)	3.28	3.28		48	
EQ1031	TK-304 - STORAGE TANK (IPP DIESEL/KEROSENE)	3.28	3.28		40	
EQ1032	TK-305 - STORAGE TANK (GAS OIL/REDUCED CRUDE)	3.28	3.28		52	
EQ1033	TK-306 - STORAGE TANK (IPP DIESEL/KEROSENE)	3.28	3.28		40	
EQ1034	TK-307 - STORAGE TANK (IPP DIESEL/KEROSENE)	3.28	3.28		48	
EQ1035	TK-308 - STORAGE TANK (GAS OIL/REDUCED CRUDE)	3.28	3.28		44	
EQ1036	TK-309 - STORM WATER / WASTE WATER STORAGE TANK	3.28	3.28		40	
EQ1037	TK-310 - WASTE WATER STORAGE TANK	3.28	3.28		40	
EQ1038	TK-311 - CRUDE OIL STORAGE TANK	3.28	3.28		48	
EQ1039	TK-312 - CRUDE OIL STORAGE TANK	3.28	3.28		40	
EQ1040	TK-313 - STORAGE TANK (NAPHTHA/KEROSENE/CRUDE)	3.28	3.28		48	
EQ1041	TK-314 - STORAGE TANK (IPP DIESEL/KEROSENE)	3.28	3.28		48	
EQ1042	TK-315 - STORAGE TANK (IPP DIESEL/KEROSENE)	3.28	3.28		48	
EQ1043	TK-316 - STORAGE TANK (NAPHTHA)	3.28	3.28		48	
EQ1044	TK-317 - STORAGE TANK (REDUCED CRUDE/GAS OIL)	3.28	3.28		48	
EQ1045	TK-318 - STORAGE TANK (IPP DIESEL/KEROSENE)	3.28	3.28		48	
EQ1046	TK-319 - STORAGE TANK (IPP DIESEL/KEROSENE)	3.28	3.28		48	
EQ1047	TK-450 - STORAGE TANK (EMULSION BREAKER)	3.28	3.28		5.2	
EQ1048	TR-100 - TRUCK RACK (TRUCK LOADING)			5250	3.28	
EQ1049	WWTC-100 - WASTEWATER TREATMENT AND COLLECTION			470	3.3	
EQ1051	H-701 - VACUUM TOWER UNIT REBOILER	12270	5		100	742

Fee Information:

Subj Item Id	Multiplier	Units Of Measure	Fee Desc
GRP004	96	1,000 BBL/Day	0720 - Petroleum Refining (Rated Capacity)

EMISSION RATES FOR CRITERIA POLLUTANTS

AI ID: 3585 - Calcasieu Refining Co - Lake Charles Crude Oil Refinery

Activity Number: PER20060006

Permit Number: 0520-00050-V6

Air - Title V Regular Permit Minor Mod

All phases

Subject Item	PM ₁₀			SO ₂			NO _x			CO			VOC		
	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year
EQT 007	1.03	1.24	0.16	0.96	1.16	0.15	14.57	17.48	2.27	3.14	3.77	0.49	0.02	0.03	< 0.01
32-G-3201															
EQT 008	1.88	2.25	0.10	21.68	26.02	1.13	64.32	77.18	3.34	14.74	17.69	0.77	0.08	0.10	< 0.01
50-G-5001															
EQT 009	1.88	2.25	0.10	21.68	26.02	1.13	64.32	77.18	3.34	14.74	17.69	0.77	0.08	0.10	< 0.01
50-G-5002															
EQT 010															
50-TK-5001															
EQT 011															
50-TK-5002															
EQT 012	0.07	0.28	0.31										0.13	0.51	0.55
CT-100															
EQT 014	1.30	1.56	0.65	1.39	1.66	0.70	9.70	11.64	4.88	16.20	19.44	8.14	6.03	21.38	8.35
F-300															
EQT 015	0.02	0.08	0.08	0.10	0.41	0.45	0.14	0.56	0.61	0.58	2.31	2.53	0.09	0.37	0.40
F-400															
EQT 016	0.06	0.07	0.27	0.01	0.01	0.02	1.17	1.35	5.13	0.69	0.80	3.03	0.07	0.08	0.30
H-102															
EQT 017	0.30	0.35	1.32	0.03	0.04	0.13	1.05	1.20	4.62	1.12	1.30	4.88	0.48	0.68	2.11
H-103															
EQT 018	0.26	0.30	1.14	0.60	0.69	2.63	1.99	2.28	8.70	2.88	3.31	12.62	0.19	0.22	0.83
H-201															
EQT 019	0.91	1.09	3.98	2.38	2.86	10.44	6.86	8.23	30.03	2.42	2.90	10.59	0.66	1.56	2.88
H-204															
EQT 020	0.07	0.08	0.30	0.16	0.18	0.69	0.54	0.62	2.38	0.76	0.87	3.32	0.07	0.08	0.32
H-205															
EQT 021	1.39	1.52	6.08	3.64	3.90	15.94	4.80	5.14	21.03	15.34	16.81	67.20	1.00	2.30	4.40
H-501															
EQT 023															
MD-100															
EQT 024															
MD-200															
EQT 025															
TK-170															
EQT 026															
TK-180															

EMISSION RATES FOR CRITERIA POLLUTANTS

AI ID: 3585 - Calcasieu Refining Co - Lake Charles Crude Oil Refinery
 Activity Number: PER20060006
 Permit Number: 0520-00050-V6
 Air - Title V Regular Permit Minor Mod

All phases

Subject Item	PM ₁₀			SO ₂			NOx			CO			VOC		
	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year
EQT 027 TK-300													1.81	2.18	7.94
EQT 028 TK-301													0.02	0.02	0.08
EQT 029 TK-302													0.08	0.09	0.33
EQT 030 TK-303													0.21	0.23	0.91
EQT 031 TK-304													0.13	0.15	0.59
EQT 032 TK-305													0.02	0.02	0.08
EQT 033 TK-306													0.13	0.15	0.59
EQT 034 TK-307													0.02	0.02	0.07
EQT 035 TK-308													0.01	0.01	0.06
EQT 036 TK-309													0.48	0.58	2.12
EQT 037 TK-310													0.09	0.11	0.40
EQT 038 TK-311													1.28	1.54	5.61
EQT 039 TK-312													1.39	1.67	6.09
EQT 040 TK-313													0.48	0.53	2.11
EQT 041 TK-314													0.03	0.04	0.15
EQT 042 TK-315													0.01	0.01	0.05
EQT 043 TK-316													0.25	0.27	1.08
EQT 044 TK-317													0.05	0.05	0.20

EMISSION RATES FOR CRITERIA POLLUTANTS

AI ID: 3585 - Calcasieu Refining Co - Lake Charles Crude Oil Refinery
 Activity Number: PER20060006
 Permit Number: 0520-00050-V6
 Air - Title V Regular Permit Minor Mod

All phases

Subject Item	PM ₁₀			SO ₂			NOx			CO			VOC		
	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year
EQT 045													0.03	0.03	0.12
TK-318															
EQT 046													0.26	0.29	1.15
TK-319															
EQT 047													0.01	0.01	0.04
TK-450															
EQT 048													2.15	10.58	9.43
TR-100													2.34	2.81	10.27
EQT 049															
WWTC-100															
EQT 051	0.63	0.75	2.75	1.65	1.98	7.22	5.20	12.47	22.76	1.90	4.56	8.31	0.45	1.08	1.99
H-701															
FUG 007													11.44	13.73	50.11
FUG															

Note: Emission rates in bold are from alternate scenarios and are not included in permitted totals

Permit Phase Totals:

PM10: 17.25 tons/yr
 SO2: 40.63 tons/yr
 NOx: 109.09 tons/yr
 CO: 122.65 tons/yr
 VOC: 133.66 tons/yr

Emission rates Notes:

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 3585 - Calcasieu Refining Co - Lake Charles Crude Oil Refinery
 Activity Number: PER200600006
 Permit Number: 0520-00050-V6
 Air - Title V Regular Permit Minor Mod

All phases

Subject Item	Acetaldehyde			Benzene			Ethyl benzene			Formaldehyde			Hydrogen sulfide		
	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year
EQT 007 32-G-3201	0.003	0.003	< 0.001	0.003	0.004	< 0.001	< 0.001	< 0.001	< 0.001	0.004	0.005	0.001			
EQT 008 50-G-5001	0.001	0.001	< 0.001	0.01	0.02	0.001	< 0.001	< 0.001	< 0.001	0.001	0.002	< 0.001			
EQT 009 50-G-5002	0.001	0.001	< 0.001	0.01	0.02	0.001	< 0.001	< 0.001	< 0.001	0.001	0.002	< 0.001			
EQT 010 50-TK-5001				< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001						
EQT 011 50-TK-5002				< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001						
EQT 012 CT-100				0.010	0.040	0.043	0.002	0.009	0.010						
EQT 013 D-315															
EQT 014 F-300				0.03	0.36	0.14	0.01	0.12	0.05	< 0.001	< 0.001	< 0.001			
EQT 015 F-400				0.001	0.002	0.002				0.008	0.033	0.036			
EQT 016 H-102										0.001	0.001	0.003			
EQT 017 H-103										0.002	0.003	0.008			
EQT 018 H-201										0.003	0.003	0.011			
EQT 019 H-204				< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.01	0.01	0.04			
EQT 020 H-205										0.001	0.001	0.003			
EQT 021 H-501				< 0.001	< 0.001	0.002	< 0.001	< 0.001	< 0.001	0.01	0.01	0.05			
EQT 023 MD-100				0.003	0.02	0.013	0.016	0.09	0.069						
EQT 024 MD-200				< 0.01	0.02	0.01	0.01	0.12	0.06						
EQT 027 TK-300				0.01	0.01	0.05	0.003	0.003	0.01				0.01	0.01	0.05

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 3585 - Calcasieu Refining Co - Lake Charles Crude Oil Refinery

Activity Number: PER20060006

Permit Number: 0520-00050-V6

Air - Title V Regular Permit Minor Mod

All phases

Subject Item	Methanol			Naphthalene			Phenol			Polynuclear Aromatic Hydrocarbons			Sulfuric acid		
	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year
EQT 007															
32-G-3201															
EQT 008															
50-G-5001															
EQT 009															
50-G-5002															
EQT 010				< 0.001	< 0.001	< 0.001									
50-TK-5001															
EQT 011				< 0.001	< 0.001	< 0.001									
50-TK-5002															
EQT 012															
CT-100															
EQT 013															
D-315															
EQT 014				< 0.001	< 0.001	< 0.001							0.01	0.01	0.03
F-300															
EQT 015															
F-400															
EQT 016															
H-102															
EQT 017															
H-103															
EQT 018															
H-201															
EQT 019															
H-204															
EQT 020															
H-205															
EQT 021															
H-501															
EQT 023				0.105	0.58	0.46									
MD-100															
EQT 024				0.09	0.79	0.41									
MD-200															
EQT 027				0.002	0.003	0.01				0.01	0.01	0.05			
TK-300															

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 3585 - Calcasieu Refining Co - Lake Charles Crude Oil Refinery
 Activity Number: PER20060006
 Permit Number: 0520-00050-V6
 Air - Title V Regular Permit Minor Mod

All phases

Subject Item	Toluene			Xylene (mixed isomers)			Zinc (and compounds)			n-Hexane		
	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year
EQT 007 32-G-3201	0.001	0.002	< 0.001	0.001	0.001	< 0.001				< 0.001	< 0.001	< 0.001
EQT 008 50-G-5001	0.01	0.01	< 0.001	0.004	0.004	< 0.001				< 0.001	< 0.001	< 0.001
EQT 009 50-G-5002	0.01	0.01	< 0.001	0.004	0.004	< 0.001				< 0.001	< 0.001	< 0.001
EQT 010 50-TK-5001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001				< 0.001	< 0.001	< 0.001
EQT 011 50-TK-5002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001				< 0.001	< 0.001	< 0.001
EQT 012 CT-100	0.008	0.033	0.037	0.011	0.042	0.046				0.016	0.064	0.070
EQT 013 D-315												
EQT 014 F-300	0.05	0.56	0.21	0.05	0.63	0.24				0.07	0.82	0.31
EQT 015 F-400	0.001	0.002	0.002	< 0.001	0.001	0.001				0.004	0.015	0.016
EQT 016 H-102							< 0.001	< 0.001	< 0.001	0.02	0.02	0.07
EQT 017 H-103							0.007	0.010	0.003	0.04	0.06	0.19
EQT 018 H-201							< 0.001	< 0.001	< 0.001	0.06	0.07	0.27
EQT 019 H-204	< 0.001	< 0.001	0.002	< 0.001	< 0.001	< 0.001	0.003	0.004	0.01	0.19	0.23	0.84
EQT 020 H-205							< 0.001	< 0.001	0.001	0.02	0.02	0.07
EQT 021 H-501	< 0.001	< 0.001	0.002	< 0.001	< 0.001	< 0.001	< 0.01	0.01	0.02	0.29	0.35	1.29
EQT 023 MD-100	0.003	0.02	0.013	0.075	0.41	0.33				0.003	0.02	0.015
EQT 024 MD-200	< 0.01	0.02	0.01	0.07	0.56	0.29				< 0.01	0.03	0.01
EQT 027 TK-300	0.01	0.01	0.04	0.01	0.01	0.03				0.04	0.05	0.19

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 3585 - Calcasieu Refining Co - Lake Charles Crude Oil Refinery
 Activity Number: PER20060006
 Permit Number: 0520-00050-V6
 Air - Title V Regular Permit Minor Mod

All phases

Subject Item	Acetaldehyde			Benzene			Ethyl benzene			Formaldehyde			Hydrogen sulfide		
	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year
EQT 028 TK-301				0.0001	0.0002	0.0006	0.0001	0.0002	0.0003						
EQT 029 TK-302				0.002	0.002	0.01	0.001	0.001	0.003						
EQT 030 TK-303				0.0041	0.0045	0.0179	0.0004	0.0005	0.0016						
EQT 031 TK-304				0.018	0.0198	0.0788	0.0036	0.0039	0.0157						
EQT 033 TK-306				0.018	0.02	0.079	0.004	0.005	0.016						
EQT 034 TK-307				0.0003	0.0004	0.0012	0.0001	0.0002	0.0003						
EQT 036 TK-309				0.01	0.01	0.05	0.004	0.004	0.02						
EQT 037 TK-310				0.002	0.003	0.01	0.001	0.001	0.003						
EQT 038 TK-311				0.01	0.01	0.03	0.002	0.002	0.01				0.01	0.01	0.04
EQT 039 TK-312				0.01	0.01	0.04	0.002	0.003	0.01				0.01	0.08	0.04
EQT 040 TK-313				0.0095	0.0104	0.0414	0.0008	0.0009	0.0034				0.0064	0.0071	0.0281
EQT 041 TK-314				0.001	0.001	0.003	< 0.001	< 0.001	0.001						
EQT 042 TK-315				< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001						
EQT 043 TK-316				0.005	< 0.005	0.021	0.001	0.001	0.002						
EQT 045 TK-318				< 0.001	0.001	0.002	< 0.001	< 0.001	0.001						
EQT 046 TK-319				< 0.001	< 0.001	0.002	< 0.001	< 0.001	< 0.001						
EQT 047 TK-450															
EQT 048 TR-100				0.019	0.24	0.083	0.029	0.12	0.127						

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 3585 - Calcasieu Refining Co - Lake Charles Crude Oil Refinery
 Activity Number: PER20060006
 Permit Number: 0520-00050-V6
 Air - Title V Regular Permit Minor Mod

All phases

Subject Item	Methanol			Naphthalene			Phenol			Polynuclear Aromatic Hydrocarbons			Sulfuric acid		
	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year
EQT 028 TK-301				0.0003	0.0004	0.0012				0.0002	0.0003	0.0011			
EQT 029 TK-302				< 0.001	< 0.001	< 0.001									
EQT 030 TK-303				0.0001	0.0002	0.0003				0.0002	0.0003	0.0007			
EQT 031 TK-304				0.0149	0.0164	0.0654									
EQT 033 TK-306				0.015	0.016	0.065									
EQT 034 TK-307				0.0004	0.0005	0.0015				0.0002	0.0003	0.0009			
EQT 036 TK-309				< 0.001	< 0.001	< 0.001									
EQT 037 TK-310				< 0.001	< 0.001	< 0.001									
EQT 038 TK-311				0.002	0.002	0.01				0.01	0.01	0.03			
EQT 039 TK-312				0.002	0.002	0.01				0.01	0.01	0.04			
EQT 040 TK-313				0.0001	0.0002	0.0006				0.0003	0.0004	0.0013			
EQT 041 TK-314				< 0.001	0.001	0.004				< 0.001	0.001	0.002			
EQT 042 TK-315				< 0.001	< 0.001	0.001				< 0.001	< 0.001	0.001			
EQT 043 TK-316				< 0.001	< 0.001	< 0.001				< 0.001	< 0.001	0.001			
EQT 045 TK-318				0.001	0.001	0.002				< 0.001	0.001	0.002			
EQT 046 TK-319				< 0.001	< 0.001	< 0.001				< 0.001	< 0.001	< 0.001			
EQT 047 TK-450	0.001	0.001	0.005												
EQT 048 TR-100				0.165	0.28	0.723									

EMISSION RATES FOR TAPIHAP & OTHER POLLUTANTS

AI ID: 3585 - Calcasieu Refining Co - Lake Charles Crude Oil Refinery

Activity Number: PER20060006

Permit Number: 0520-00050-V6

Air - Title V Regular Permit Minor Mod

All phases

Subject Item	Toluene				Xylene (mixed isomers)				Zinc (and compounds)				n-Hexane			
	Avg lb/hr	Max lb/hr	Tons/Year		Avg lb/hr	Max lb/hr	Tons/Year		Avg lb/hr	Max lb/hr	Tons/Year		Avg lb/hr	Max lb/hr	Tons/Year	
EQT 028 TK-301	0.0001	0.0002	0.0005		0.0001	0.0002	0.0006						0.0002	0.0003	0.001	
EQT 029 TK-302	0.003	0.003	0.01		0.003	0.004	0.01						0.004	0.005	0.02	
EQT 030 TK-303	0.0025	0.0028	0.0111		0.0014	0.0015	0.0061						0.0109	0.0120	0.0478	
EQT 031 TK-304	0.0105	0.0116	0.046		0.0075	0.0082	0.0327						0.029	0.0319	0.127	
EQT 033 TK-306	0.011	0.012	0.046		0.007	0.008	0.033						0.029	0.032	0.127	
EQT 034 TK-307	0.0002	0.0003	0.0008		0.0002	0.0003	0.0008						0.0004	0.0005	0.0019	
EQT 036 TK-309	0.02	0.02	0.08		0.02	0.02	0.08						0.03	0.03	0.11	
EQT 037 TK-310	0.003	0.004	0.01		0.004	0.004	0.02						0.005	0.01	0.02	
EQT 038 TK-311	0.01	0.01	0.03		0.01	0.01	0.02						0.03	0.03	0.12	
EQT 039 TK-312	0.01	0.01	0.03		0.01	0.01	0.02						0.03	0.04	0.13	
EQT 040 TK-313	0.0057	0.0062	0.0248		0.0029	0.0032	0.0127						0.0255	0.028	0.1115	
EQT 041 TK-314	< 0.001	0.001	0.002		< 0.001	0.001	0.002						0.001	0.001	0.005	
EQT 042 TK-315	< 0.001	< 0.001	< 0.001		< 0.001	< 0.001	< 0.001						< 0.001	< 0.001	0.001	
EQT 043 TK-316	0.003	0.004	0.015		0.002	0.002	0.009						0.013	0.014	0.056	
EQT 045 TK-318	< 0.001	< 0.001	< 0.001		< 0.001	< 0.001	0.001						0.001	0.001	0.003	
EQT 046 TK-319	< 0.001	< 0.001	0.001		< 0.001	< 0.001	0.001						0.001	0.001	0.003	
EQT 047 TK-450																
EQT 048 TR-100	0.027	0.37	0.118		0.14	0.59	0.614						0.038	0.53	0.166	

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AIID: 3585 - Calcasieu Refining Co - Lake Charles Crude Oil Refinery

Activity Number: PER20060006

Permit Number: 0520-00050-V6

Air - Title V Regular Permit Minor Mod

All phases

Subject Item	Acetaldehyde			Benzene			Ethyl benzene			Formaldehyde			Hydrogen sulfide		
	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year
EQT 049				1.62	1.94	7.09	0.037	0.044	0.16						
WWTC-100															
EQT 051				< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.01	0.01	0.02			
H-701															
FUG 007				0.12	0.14	0.51	0.03	0.03	0.13						
FUG															

EMISSION RATES FOR TAPIHAP & OTHER POLLUTANTS

AI ID: 3585 - Calcasieu Refining Co - Lake Charles Crude Oil Refinery
 Activity Number: PER20060006
 Permit Number: 0520-00050-V6
 Air - Title V Regular Permit Minor Mod

All phases

Subject Item	Methanol			Naphthalene			Phenol			Polynuclear Aromatic Hydrocarbons			Sulfuric acid		
	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year
EQT 049				0.002	0.002	0.010	0.0064	0.01	0.01						
WWTC-100															
EQT 051															
H-701															
FUG 007				0.07	0.08	0.31									
FUG															

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 3585 - Calcasieu Refining Co - Lake Charles Crude Oil Refinery
 Activity Number: PER20060006
 Permit Number: 0520-00050-V6
 Air - Title V Regular Permit Minor Mod

All phases

Subject Item	Toluene			Xylene (mixed isomers)			Zinc (and compounds)			n-Hexane		
	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year
EQT 049 wwtc-100	0.47	0.56	2.04	0.13	0.16	0.59				0.005	0.006	0.02
EQT 051 H-701	< 0.001	< 0.001	0.001	< 0.001	< 0.001	< 0.001	0.002	0.003	0.01	0.13	0.16	0.58
FUG 007 FUG	0.11	0.13	0.48	0.09	0.11	0.39				0.18	0.22	0.81

Note: Emission rates in bold are from alternate scenarios and are not included in permitted totals

Permit Parameter Totals:

- Acetaldehyde: <0.01 tons/yr
- Benzene: 8.33 tons/yr
- Ethyl benzene: 0.70 tons/yr
- Formaldehyde: 0.18 tons/yr
- Hydrogen sulfide: 0.16 tons/yr
- Methanol: <0.01 tons/yr
- n-Hexane: 5.84 tons/yr
- Naphthalene: 2.09 tons/yr
- Phenol: <0.01 tons/yr
- Polynuclear Aromatic Hydrocarbons: 0.13 tons/yr
- Sulfuric acid: 0.03 tons/yr
- Toluene: 3.29 tons/yr
- Xylene (mixed isomers): 2.78 tons/yr
- Zinc (and compounds): 0.04 tons/yr

Emission Rates Notes:

SPECIFIC REQUIREMENTS

AI ID: 3585 - Calcasieu Refining Co - Lake Charles Crude Oil Refinery

Activity Number: PER20060006

Permit Number: 0520-00050-V6

Air - Title V Regular Permit Minor Mod

EQT007 32-G-3201 - EMERGENCY DIESEL GENERATOR

- 1 Opacity \leq 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified
- 2 Opacity \leq 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]

Which Months: All Year Statistical Basis: Six-minute average

- 3 Equipment/operational data recordkeeping by electronic or hard copy at the approved frequency. Record and keep on site for at least two years the data required to demonstrate exemption from the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

EQT008 50-G-5001 - EMERGENCY GENERATOR NO. 1

- 4 Opacity \leq 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified
- 5 Opacity \leq 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]

Which Months: All Year Statistical Basis: Six-minute average

- 6 Equipment/operational data recordkeeping by electronic or hard copy at the approved frequency. Record and keep on site for at least two years the data required to demonstrate exemption from the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

EQT009 50-G-5002 - EMERGENCY GENERATOR NO. 2

- 7 Opacity \leq 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified
- 8 Opacity \leq 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]

Which Months: All Year Statistical Basis: Six-minute average

- 9 Equipment/operational data recordkeeping by electronic or hard copy at the approved frequency. Record and keep on site for at least two years the data required to demonstrate exemption from the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

EQT014 F-300 - MARINE VAPOR RECOVERY UNIT

- 10 Opacity \leq 20 percent, except for a combined total of six hours in any 10 consecutive day period, for burning in connection with pressure valve releases for control over process upsets. [LAC 33:III.1105]
Which Months: All Year Statistical Basis: None specified

SPECIFIC REQUIREMENTS

AI ID: 3585 - Calcasieu Refining Co - Lake Charles Crude Oil Refinery

Activity Number: PER20060006

Permit Number: 0520-00050-V6

Air - Title V Regular Permit Minor Mod

EQT014 F-300 - MARINE VAPOR RECOVERY UNIT

- 11 Submit notification: Due to the Office of Environmental Compliance, Emergency and Radiological Services Division, Single Point of Contact (SPOC), as soon as possible after the start of burning of pressure valve releases for control over process upsets. Notify in accordance with LAC 33:1.3923. Notification is required only if the upset cannot be controlled in six hours. [LAC 33:III.1105]
- 12 Comply with NSPS Subpart J. [LAC 33:III.1503.C]
- 13 Fuel gas: Hydrogen sulfide ≤ 0.1 gr/dscf (230 mg/dscm). Subpart J. [40 CFR 60.104(a)(1)]
Which Months: All Year Statistical Basis: Three-hour rolling average
- 14 Monitor H2S level in the fuel gas (≤ 150 mg/dscm) with the alternative monitoring procedure approved by EPA on April 18, 1997. [40 CFR 60.105]
- 15 Use as reference methods and procedures the test methods in 40 CFR 60 appendix A or other methods and procedures as specified in 40 CFR 60.106, except as provided in 40 CFR 60.8(b), in conducting the performance tests required in 40 CFR 60.8. Subpart J. [40 CFR 60.106(a)]
- 16 Determine compliance with standards using the test methods and procedures specified in 40 CFR 60.106(a) through (k). Subpart J. [40 CFR 60.106]
- 17 Design and operate for no visible emissions, as determined by the methods specified in 40 CFR 60.18(f), except for periods not to exceed a total of 5 minutes during any two consecutive hours. Subpart A. [40 CFR 60.18(c)(1)]
- 18 Operate with a flame present at all times, as determined by the methods specified in 40 CFR 60.18(f)(2). Subpart A. [40 CFR 60.18(c)(2)]
- 19 Heat content ≥ 300 BTU/scf (11.2 MJ/scm). Determine the net heating value of the gas being combusted by the methods specified in 40 CFR 60.18(f)(3). Subpart A. [40 CFR 60.18(c)(3)(ii)]
- Which Months: All Year Statistical Basis: None specified
- 20 Exit Velocity $< V_{max}$ (ft/sec). Determine V_{max} using the method specified in 40 CFR 60.18(f)(6). Subpart A. [40 CFR 60.18(c)(5)]
- Which Months: All Year Statistical Basis: None specified
- 21 Monitor flares to ensure that they are operated and maintained in conformance with their designs. Applicable subparts will provide provisions stating how to monitor flares. Subpart A. [40 CFR 60.18(d)]
- 22 Operate at all times when emissions may be vented to the flare. Subpart A. [40 CFR 60.18(e)]
- 23 Presence of a flame monitored by flame monitor continuously. Use a thermocouple or any other equivalent device to detect the presence of a flare pilot flame. Subpart A. [40 CFR 60.18(f)(2)]
- Which Months: All Year Statistical Basis: None specified

EQT015 F-400 - FLARE

- 24 Opacity ≤ 20 percent, except for a combined total of six hours in any 10 consecutive day period, for burning in connection with pressure valve releases for control over process upsets. [LAC 33:III.1105]
- Which Months: All Year Statistical Basis: None specified
- 25 Submit notification: Due to the Office of Environmental Compliance, Emergency and Radiological Services Division, Single Point of Contact (SPOC), as soon as possible after the start of burning of pressure valve releases for control over process upsets. Notify in accordance with LAC 33:1.3923. Notification is required only if the upset cannot be controlled in six hours. [LAC 33:III.1105]
- 26 Comply with NSPS Subpart J. [LAC 33:III.1503.C]
- 27 Fuel gas: Hydrogen sulfide ≤ 0.1 gr/dscf (230 mg/dscm). Subpart J. [40 CFR 60.104(a)(1)]
Which Months: All Year Statistical Basis: Three-hour rolling average
- 28 Monitor H2S level in the fuel gas (≤ 150 mg/dscm) with the alternative monitoring procedure approved by EPA on April 18, 1997. [40 CFR 60.105]
- 29 Use as reference methods and procedures the test methods in 40 CFR 60 appendix A or other methods and procedures as specified in 40 CFR 60.106, except as provided in 40 CFR 60.8(b), in conducting the performance tests required in 40 CFR 60.8. Subpart J. [40 CFR 60.106(a)]

SPECIFIC REQUIREMENTS

AI ID: 3585 - Calcasieu Refining Co - Lake Charles Crude Oil Refinery

Activity Number: PER20060006

Permit Number: 0520-00050-V6

Air - Title V Regular Permit Minor Mod

EQT015 F-400 - FLARE

- 30 Determine compliance with standards using the test methods and procedures specified in 40 CFR 60.106(a) through (k). Subpart J. [40 CFR 60.106]
- 31 Design and operate for no visible emissions, as determined by the methods specified in 40 CFR 60.18(f), except for periods not to exceed a total of 5 minutes during any two consecutive hours. Subpart A. [40 CFR 60.18(c)(1)]
- 32 Operate with a flame present at all times, as determined by the methods specified in 40 CFR 60.18(f)(2). Subpart A. [40 CFR 60.18(c)(2)]
- 33 Heat content >= 300 BTU/scf (11.2 MJ/scm). Determine the net heating value of the gas being combusted by the methods specified in 40 CFR 60.18(f)(3). Subpart A. [40 CFR 60.18(c)(3)(ii)]
Which Months: All Year Statistical Basis: None specified
- 34 Exit Velocity < 60 ft/sec (18.3 m/sec), as determined by the method specified in 40 CFR 60.18(f)(4). Subpart A. [40 CFR 60.18(c)(4)(i)]
Which Months: All Year Statistical Basis: None specified
- 35 Monitor flares to ensure that they are operated and maintained in conformance with their designs. Applicable subparts will provide provisions stating how to monitor flares. Subpart A. [40 CFR 60.18(d)]
- 36 Operate at all times when emissions may be vented to the flare. Subpart A. [40 CFR 60.18(e)]
- 37 Presence of a flame monitored by flame monitor continuously. Use a thermocouple or any other equivalent device to detect the presence of a flare pilot flame. Subpart A. [40 CFR 60.18(f)(2)]
Which Months: All Year Statistical Basis: None specified

EQT016 H-102 - STEAM BOILER NO. 2

- 38 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes (Complies by using sweet natural gas as fuel). [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified
- 39 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes (Complies by using sweet natural gas as fuel). [LAC 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average
- 40 Total suspended particulate <= 0.6 lb/MMBTU of heat input (Complies by using sweet natural gas as fuel). [LAC 33:III.1313.C]
- 41 Equipment/operational data recordkeeping by electronic or hard copy at the approved frequency. Record and keep on site for at least two years the data required to demonstrate exemption from the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

EQT017 H-103 - STEAM BOILER NO. 3 (CLEAVER-BROOKS UNIT)

- 42 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes (Complies by using sweet natural gas as fuel). [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified
- 43 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes (Complies by using sweet natural gas as fuel). [LAC 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average

SPECIFIC REQUIREMENTS

AI ID: 3585 - Calcasieu Refining Co - Lake Charles Crude Oil Refinery

Activity Number: PER20060006

Permit Number: 0520-00050-V6

Air - Title V Regular Permit Minor Mod

EQT017 H-103 - STEAM BOILER NO. 3 (CLEAVER-BROOKS UNIT)

- 44 Total suspended particulate <= 0.6 lb/MMBTU of heat input (Complies by using sweet natural gas as fuel). [LAC 33:III.1313.C]
Which Months: All Year Statistical Basis: None specified
- 45 Equipment/operational data recordkeeping by electronic or hard copy at the approved frequency. Record and keep on site for at least two years the data required to demonstrate exemption from the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

EQT018 H-201 - HEATER

- 46 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified
- 47 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average
- 48 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
Which Months: All Year Statistical Basis: None specified
- 49 Comply with NSPS Subpart J. [LAC 33:III.1503.C]
- 50 Fuel gas: Hydrogen sulfide <= 0.1 gr/dscf (230 mg/dscm). Subpart J. [40 CFR 60.104(a)(1)]
Which Months: All Year Statistical Basis: Three-hour rolling average
- 51 Monitor H2S level in the fuel gas (<= 150 mg/dscm) with the alternative monitoring procedure approved by EPA on April 18, 1997. [40 CFR 60.105]
- 52 Use as reference methods and procedures the test methods in 40 CFR 60 appendix A or other methods and procedures as specified in 40 CFR 60.106, except as provided in 40 CFR 60.8(b), in conducting the performance tests required in 40 CFR 60.8. Subpart J. [40 CFR 60.106(a)]
- 53 Determine compliance with standards using the test methods and procedures specified in 40 CFR 60.106(a) through (k). Subpart J. [40 CFR 60.106]

EQT019 H-204 - NO. 2 CDU HEATER

- 54 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified
- 55 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]
Which Months: All Year Statistical Basis: Six-minute average
- 56 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
Which Months: All Year Statistical Basis: None specified
- 57 Comply with NSPS Subpart J. [LAC 33:III.1503.C]
- 58 Fuel gas: Hydrogen sulfide <= 0.1 gr/dscf (230 mg/dscm). Subpart J. [40 CFR 60.104(a)(1)]
Which Months: All Year Statistical Basis: Three-hour rolling average
- 59 Monitor H2S level in the fuel gas (<= 150 mg/dscm) with the alternative monitoring procedure approved by EPA on April 18, 1997. [40 CFR 60.105]
- 60 Use as reference methods and procedures the test methods in 40 CFR 60 appendix A or other methods and procedures as specified in 40 CFR 60.106, except as provided in 40 CFR 60.8(b), in conducting the performance tests required in 40 CFR 60.8. Subpart J. [40 CFR 60.106(a)]

SPECIFIC REQUIREMENTS

AI ID: 3585 - Calcasieu Refining Co - Lake Charles Crude Oil Refinery

Activity Number: PER20060006

Permit Number: 0520-00050-V6

Air - Title V Regular Permit Minor Mod

EQT019 H-204 - NO. 2 CDU HEATER

61 Determine compliance with standards using the test methods and procedures specified in 40 CFR 60.106(a) through (k). Subpart J. [40 CFR 60.106]

EQT020 H-205 - STABILIZER REBOILER

62 Opacity \leq 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified

63 Opacity \leq 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]

Which Months: All Year Statistical Basis: Six-minute average

64 Total suspended particulate \leq 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]

Which Months: All Year Statistical Basis: None specified

65 Comply with NSPS Subpart J. [LAC 33:III.1503.C]

66 Fuel gas: Hydrogen sulfide \leq 0.1 gr/dscf (230 mg/dscm). Subpart J. [40 CFR 60.104(a)(1)]

Which Months: All Year Statistical Basis: Three-hour rolling average

67 Monitor H2S level in the fuel gas (\leq 150 mg/dscm) with the alternative monitoring procedure approved by EPA on April 18, 1997. [40 CFR 60.105]

68 Use as reference methods and procedures the test methods in 40 CFR 60 appendix A or other methods and procedures as specified in 40 CFR 60.106, except as provided in 40 CFR 60.8(b), in conducting the performance tests required in 40 CFR 60.8. Subpart J. [40 CFR 60.106(a)]

69 Determine compliance with standards using the test methods and procedures specified in 40 CFR 60.106(a) through (k). Subpart J. [40 CFR 60.106]

EQT021 H-501 - NO. 5 CDU HEATER

70 Opacity \leq 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified

71 Opacity \leq 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]

Which Months: All Year Statistical Basis: Six-minute average

72 Total suspended particulate \leq 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]

Which Months: All Year Statistical Basis: None specified

73 Comply with NSPS Subpart J. [LAC 33:III.1503.C]

74 Fuel gas: Hydrogen sulfide \leq 0.1 gr/dscf (230 mg/dscm). Subpart J. [40 CFR 60.104(a)(1)]

Which Months: All Year Statistical Basis: Three-hour rolling average

75 Monitor H2S level in the fuel gas (\leq 150 mg/dscm) with the alternative monitoring procedure approved by EPA on April 18, 1997. [40 CFR 60.105]

76 Use as reference methods and procedures the test methods in 40 CFR 60 appendix A or other methods and procedures as specified in 40 CFR 60.106, except as provided in 40 CFR 60.8(b), in conducting the performance tests required in 40 CFR 60.8. Subpart J. [40 CFR 60.106(a)]

77 Determine compliance with standards using the test methods and procedures specified in 40 CFR 60.106(a) through (k). Subpart J. [40 CFR 60.106]

EQT024 MD-200 - MARINE DOCKS (HAYMARK DOCK, BARGE LOADING)

SPECIFIC REQUIREMENTS

AI ID: 3585 - Calcasieu Refining Co - Lake Charles Crude Oil Refinery

Activity Number: PER20060006

Permit Number: 0520-00050-V6

Air - Title V Regular Permit Minor Mod

EQT024 MD-200 - MARINE DOCKS (HAYMARK DOCK, BARGE LOADING)

- 78 Equip with a vapor collection system designed to collect the organic compounds vapors displaced from ships and/or barges during loading. [LAC 33:III.2108.C.1]
- 79 VOC, Total \geq 90 % reduction by weight by collecting and processing the vapors with a recovery and/or destruction system. [LAC 33:III.2108.C.2]
Which Months: All Year Statistical Basis: None specified
- 80 Barge loading of crude oil or other VOCs: Total Organic Compounds (TOC) \leq 30 mg/l of VOC loaded (0.25 lb/1000 gal). [LAC 33:III.2108.C.3.b]
Which Months: All Year Statistical Basis: None specified
- 81 Load only into ships and/or barges equipped with vapor collection equipment that is compatible with the affected facility's vapor collection system. [LAC 33:III.2108.C.5]
- 82 Properly connect the vapor collection and disposal system to the ships and/or barges before any loading is done. [LAC 33:III.2108.C.6]
- 83 Comply with the requirements of LAC 33:III.2108 as soon as practicable, but in no event later than one year from the promulgation of the regulation revision, if subject to LAC 33:III.2108 as a result of a revision of LAC 33:III.2108. [LAC 33:III.2108.D.4]
- 84 Determine compliance with LAC 33:III.2108.C.3 using the methods in LAC 33:III.2108.E.1-5, as appropriate. [LAC 33:III.2108.E]
- 85 Submit test results: Due to the Office of Environmental Assessment, Air Quality Assessment Division, within 45 days of any testing done in accordance with LAC 33:III.2108.E. [LAC 33:III.2108.F.1]
- 86 Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in LAC 33:III.2108.F.2.a-e, as applicable. [LAC 33:III.2108.F.2]
- 87 Loading gasoline, crude oil or other VOCs into ships or barges is prohibited unless all loading and vapor lines, arms and hoses are equipped with fittings which make vapor-tight connections and provide tight shut-off when disconnected. [LAC 33:III.2108.G.1]
- 88 Prevent spills or leaks during attachment or disconnection of filling lines, hoses or arms. Do not spill liquids or handle in any other manner that would result in evaporation to the atmosphere. [LAC 33:III.2108.G.2]
- 89 Maintain all equipment associated with the loading of gasoline, crude oil or other VOC into ships or barges to be leak-free, gas-tight and in good working order. [LAC 33:III.2108.G.3]

EQT027 TK-300 - CRUDE OIL STORAGE TANK

- 90 Equip with a submerged fill pipe. [LAC 33:III.2103.B]
- 91 Equip with an internal floating roof consisting of a pontoon type roof, double deck roof, or internal floating cover which will rest or float on the surface of the liquid contents and is equipped with a closure seal to close the space between the roof edge and tank wall. All tank gauging and sampling devices will be gas-tight except when gauging or sampling is taking place. [LAC 33:III.2103.C]
- 92 Seal closure devices required in LAC 33:III.2103.D shall have no visible holes, tears, or other openings in the seals or seal fabric. [LAC 33:III.2103.D.2.a]
- 93 Seal closure devices required in LAC 33:III.2103.D shall be intact and uniformly in place around the circumference of the floating roof and the tank wall. [LAC 33:III.2103.D.2.b]
- 94 Seal gap area \leq 1 in²/ft of tank diameter (6.5 cm²/0.3 m), for gaps between the secondary seal and tank wall that exceed 1/8 inch (0.32 cm) in width. [LAC 33:III.2103.D.2.c]
Which Months: All Year Statistical Basis: None specified
- 95 Seal gap area \leq 10 in²/ft of tank diameter (65 cm²/0.3 m), for gaps between the primary seal and tank wall that exceed 1/8 inch (0.32 cm) in width. [LAC 33:III.2103.D.2.d]
Which Months: All Year Statistical Basis: None specified
- 96 Secondary Seal or closure mechanism monitored by visual inspection/determination semiannually. [LAC 33:III.2103.D.2.e]
Which Months: All Year Statistical Basis: None specified
- 97 Secondary seals: Seal gap area & width monitored by measurement annually at any tank level, provided the roof is off its legs. [LAC 33:III.2103.D.2.e]
Which Months: All Year Statistical Basis: None specified

SPECIFIC REQUIREMENTS

AI ID: 3585 - Calcasieu Refining Co - Lake Charles Crude Oil Refinery

Activity Number: PER200600006

Permit Number: 0520-00050-V6

Air - Title V Regular Permit Minor Mod

EQT027 TK-300 - CRUDE OIL STORAGE TANK

- 98 Primary seals: Seal gap area & width monitored by measurement once every five years at any tank level, provided the roof is off its legs. [LAC 33:III.2103.D.2.e] Which Months: All Year Statistical Basis: None specified
- 99 Equipment/operational data recordkeeping by electronic or hard copy upon occurrence of event. Keep records of conditions that are not up to the standards described in LAC 33:III.2103.D.2, and the date(s) that the standards are not met. Notify the administrative authority within seven days of noncompliance with LAC 33:III.2103.D.2. [LAC 33:III.2103.D.2.e]
- 100 Initiate repairs of seals within seven working days of recognition of defective conditions by ordering appropriate parts, to avoid noncompliance with LAC 33:III.2103. Complete repairs within three months of the ordering of the repair parts. [LAC 33:III.2103.D.2.e]
- 101 Provide all openings in the external floating roof (except for automatic bleeder vents, rim space vent, and leg sleeves) with a projection below the liquid surface. Equip each opening in the roof (except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves) with a cover, seal or lid that is to be maintained in a closed position at all times except when the device is in actual use. Keep automatic bleeder vents closed at all times except when the roof is being floated off the roof leg supports. Set rim vents to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting. Equip any emergency roof drain with a slotted membrane fabric cover or equivalent cover that covers at least 90 percent of the opening. [LAC 33:III.2103.D.3]
- 102 Equip all covers, seals, lids, automatic bleeder vents and rim space vents with gaskets. [LAC 33:III.2103.D.3]
- 103 Control nonslotted guide poles and stilling wells using pole wipers and gasketing between the well and sliding cover. Control slotted guide poles using a float with wiper, pole wiper, and gasketing between the well and sliding cover. [LAC 33:III.2103.D.4.a]
- 104 Submit notification: Due to the Office of Environmental Assessment, Air Quality Assessment Division, prior to installation of guide poles and stilling well systems. Submit a description of the method of control and supporting calculations based upon the Addendum to American Petroleum Institute Publication Number 2517 Evaporative Loss from External Floating Roof Tanks, May 1994, for approval. [LAC 33:III.2103.D.4.a]
- 105 Equipment/operational data monitored by visual inspection/determination semiannually. Inspect control systems required by LAC 33:III.2103.D.4 for rips, tears, visible gaps in the pole or float wiper, and/or missing sliding cover gaskets. [LAC 33:III.2103.D.4.d] Which Months: All Year Statistical Basis: None specified
- 106 Initiate repairs of any rips, tears, visible gaps in the pole or float wiper, and/or missing sliding cover gaskets by ordering appropriate parts within seven working days after defect is identified, to avoid noncompliance with LAC 33:III.2103.D.4. Complete repairs within three months of the ordering of the repair parts. [LAC 33:III.2103.D.4.d]
- 107 Equip with an external floating roof consisting of a pontoon type roof, double deck type roof, or external floating cover which will rest or float on the surface of the liquid contents and is equipped with a primary closure seal to close the space between the roof edge and tank wall and a continuous secondary seal (a rim mounted secondary) extending from the floating roof to the tank wall. [LAC 33:III.2103.D]
- 108 Equip external floating roof with a primary closure seal, consisting of a liquid mounted seal or a mechanical shoe seal, as defined in LAC 33:III.2103.C.1.a and b. [LAC 33:III.2103.D]
- 109 Determine compliance with LAC 33:III.2103.D.2 and 4 using the methods in LAC 33:III.2103.H.1. [LAC 33:III.2103.H.1]
- 110 Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e. [LAC 33:III.2103.H.3]
- 111 Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable. [LAC 33:III.2103.I]
- 112 The primary seal is to be either a metallic shoe seal, a liquid-mounted seal, or a vapor-mounted seal. Subpart Ka. [40 CFR 60.112a(a)(1)(i)]
- 113 Seal gap area $\leq 10.0 \text{ in}^2/\text{R}$ (212 sq cm/meter) of tank diameter for the accumulated area of gaps between the tank wall and the mechanical shoe seal or liquid-mounted primary seal. Subpart Ka. [40 CFR 60.112a(a)(1)(A)] Which Months: All Year Statistical Basis: None specified

SPECIFIC REQUIREMENTS

AI ID: 3585 - Calcasieu Refining Co - Lake Charles Crude Oil Refinery

Activity Number: PER20060006

Permit Number: 0520-00050-V6

Air - Title V Regular Permit Minor Mod

EQT027 **TK-300 - CRUDE OIL STORAGE TANK**

114 Seal gap width \leq 1.5 in (3.81 cm) for the width of any portion of any gap between the tank wall and the mechanical shoe seal or liquid-mounted primary seal. Subpart Ka. [40 CFR 60.112a(a)(1)(i)(A)]

Which Months: All Year Statistical Basis: None specified

115 There are to be no holes, tears, or other openings in the shoe, primary seal fabric, or seal envelope. Subpart Ka. [40 CFR 60.112a(a)(1)(i)(D)]

116 Install the secondary seal above the primary seal so that it completely covers the space between the roof edge and the tank wall except as provided in 40 CFR 60.112a(a)(1)(ii)(B). Subpart Ka. [40 CFR 60.112a(a)(1)(ii)(A)]

117 Seal gap area \leq 1.0 in²/R (21.2 sq cm/meter) of tank diameter for the accumulated area of gaps between the tank wall and the secondary seal used in combination with a metallic shoe or liquid-mounted primary seal. Subpart Ka. [40 CFR 60.112a(a)(1)(ii)(B)]

Which Months: All Year Statistical Basis: None specified

118 Seal gap width \leq 0.5 in (1.27 cm) for the width of any portion of any gap between the tank wall and the secondary seal used in combination with a metallic shoe or liquid-mounted primary seal. Subpart Ka. [40 CFR 60.112a(a)(1)(ii)(B)]

Which Months: All Year Statistical Basis: None specified

119 There are to be no holes, tears or other openings in the secondary seal or seal fabric. Subpart Ka. [40 CFR 60.112a(a)(1)(ii)(C)]

120 Each opening in the roof except for automatic bleeder vents and rim space vents is to provide a projection below the liquid surface. Equip each opening in the roof except for automatic bleeder vents, rim space vents and leg sleeves with a cover, seal or lid and maintain in a closed position at all times (i.e., no visible gap) except when the device is in actual use or as described in 40 CFR 60.112a(a)(1)(iv). Close automatic bleeder vents at all times when the roof is floating, except when the roof is being floated off or is being landed on the roof leg supports. Set rim vents to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting. Subpart Ka. [40 CFR 60.112a(a)(1)(iii)]

121 Provide each emergency roof drain with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening. Subpart Ka. [40 CFR 60.112a(a)(1)(v)]

122 Equip with an external floating roof consisting of a pontoon-type or double-deck-type cover that rests on the surface of the liquid contents and is equipped with a closure device between the tank wall and the roof edge. Except as provided in 40 CFR 60.112a(a)(1)(ii)(D), the closure device is to consist of two seals, one (secondary) above the other (primary). The roof is to be floating on the liquid at all times (i.e., off the roof leg supports) except during initial fill and when the tank is completely emptied and subsequently refilled. The process of emptying and refilling when the roof is resting on the leg supports shall be continuous and shall be accomplished as rapidly as possible. Subpart Ka. [40 CFR 60.112a(a)(1)]

123 Seal gap area & width monitored by measurement at the regulation's specified frequency. Determine the gap areas and maximum gap widths between the primary seal and the tank wall within 60 days of the initial fill with petroleum liquid and at least once every 5 years thereafter using the procedures in 40 CFR 60.113a(a)(1)(ii). Accomplish all primary seal inspections or gap measurements which require the removal or dislodging of the secondary seal as rapidly as possible and replace the secondary seal as soon as possible. Subpart Ka. [40 CFR 60.113a(a)(1)(i)(A)]

Which Months: All Year Statistical Basis: None specified

124 Seal gap area & width monitored by measurement at the regulation's specified frequency. Determine the gap areas and maximum gap widths between the secondary seal and the tank wall within 60 days of the initial fill with petroleum liquid and at least once every year thereafter using the procedures in 40 CFR 60.113a(a)(1)(ii). Subpart Ka. [40 CFR 60.113a(a)(1)(i)(B)]

Which Months: All Year Statistical Basis: None specified

125 Gap measurement(s) recordkeeping by electronic or hard copy upon each occurrence of gap measurement performance. Each record shall identify the vessel on which the measurement was performed and shall contain the date of the seal gap measurement, the raw data obtained in the measurement process required by 40 CFR 60.113a(a)(1)(ii) and the calculation required by 40 CFR 60.113a(a)(1)(iii). Keep records of each gap measurement at the plant for a period of at least 2 years following the date of measurement. Subpart Ka. [40 CFR 60.113a(a)(1)(i)(D)]

SPECIFIC REQUIREMENTS

AI ID: 3585 - Calcasieu Refining Co - Lake Charles Crude Oil Refinery

Activity Number: PER20060006

Permit Number: 0520-00050-V6

Air - Title V Regular Permit Minor Mod

EQT027 TK-300 - CRUDE OIL STORAGE TANK

- 126 Submit report: Due to DEQ within 60 days of the date of seal gap measurements, if either the seal gap calculated in accord with 40 CFR 60.113a(a)(1)(iii) or the measured maximum seal gap exceeds the limitations specified by 40 CFR 60.112a. The report shall identify the vessel and list each reason why the vessel did not meet the specifications of 40 CFR 60.112a. The report shall also describe the actions necessary to bring the storage vessel into compliance with the specifications of 40 CFR 60.112a. Subpart Ka. [40 CFR 60.113a(a)(1)(E)]
- 127 Submit notification: Due to DEQ at least 30 days prior to the gap measurement to afford DEQ to have an observer present. Subpart Ka. [40 CFR 60.113a(a)(1)(iv)]
- 128 Petroleum liquid storage data recordkeeping by electronic or hard copy at the approved frequency. Maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period, except as provided in 40 CFR 60.115a(d). Subpart Ka. [40 CFR 60.115a]

EQT029 TK-302 - MINERAL SPIRITS STORAGE TANK

- 129 Equip with a submerged fill pipe. [LAC 33:III.2103.B]
- 130 Equip internal floating roof with two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous. [LAC 33:III.2103.C.1.c]
- 131 Provide each opening in the internal floating roof (except rim space vents and automatic bleeder vents) with a projection below the liquid surface. In addition, provide each opening (except for leg sleeves, bleeder vents, rim space vents, column wells, ladder wells, sample wells, and sub drains) with a cover equipped with a gasket. Equip automatic bleeder vents and rim space vents with gaskets and equip ladder wells with a sliding cover. [LAC 33:III.2103.C.2]
- 132 Equip with an internal floating roof consisting of a pontoon type roof, double deck roof, or internal floating cover which will rest or float on the surface of the liquid contents and is equipped with a closure seal to close the space between the roof edge and tank wall. All tank gauging and sampling devices will be gas-tight except when gauging or sampling is taking place. [LAC 33:III.2103.C]
- 133 Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3 a-e. [LAC 33:III.2103.H.3]
- 134 Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable. [LAC 33:III.2103.I]
- 135 Equip with a floating roof, a vapor recovery system, or their equivalents. Subpart K. [40 CFR 60.112(a)(1)]
- 136 Petroleum liquid storage data recordkeeping by electronic or hard copy at the approved frequency. Maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period, except as provided in 40 CFR 60.113(d). Subpart K. [40 CFR 60.113]

EQT030 TK-303 - STORAGE TANK (NAPHTHA)

- 137 Equip with a submerged fill pipe. [LAC 33:III.2103.B]
- 138 Equip internal floating roof with two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous. [LAC 33:III.2103.C.1.c]
- 139 Provide each opening in the internal floating roof (except rim space vents and automatic bleeder vents) with a projection below the liquid surface. In addition, provide each opening (except for leg sleeves, bleeder vents, rim space vents, column wells, ladder wells, sample wells, and sub drains) with a cover equipped with a gasket. Equip automatic bleeder vents and rim space vents with gaskets and equip ladder wells with a sliding cover. [LAC 33:III.2103.C.2]
- 140 Equip with an internal floating roof consisting of a pontoon type roof, double deck roof, or internal floating cover which will rest or float on the surface of the liquid contents and is equipped with a closure seal to close the space between the roof edge and tank wall. All tank gauging and sampling devices will be gas-tight except when gauging or sampling is taking place. [LAC 33:III.2103.C]
- 141 Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3 a-e. [LAC 33:III.2103.H.3]

SPECIFIC REQUIREMENTS

AI ID: 3585 - Calcasieu Refining Co - Lake Charles Crude Oil Refinery

Activity Number: PER20060006

Permit Number: 0520-00050-V6

Air - Title V Regular Permit Minor Mod

EQT030 TK-303 - STORAGE TANK (NAPHTHA)

- 142 Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable. [LAC 33:III.2103.I]
- 143 Equip with a floating roof, a vapor recovery system, or their equivalents. Subpart K. [40 CFR 60.112(a)(1)]
- 144 Petroleum liquid storage data recordkeeping by electronic or hard copy at the approved frequency. Maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period, except as provided in 40 CFR 60.113(d). Subpart K. [40 CFR 60.113]

EQT036 TK-309 - STORM WATER / WASTE WATER STORAGE TANK

- 145 Equip with a submerged fill pipe. [LAC 33:III.2103.B]
- 146 VOC, Total \geq 90 % control efficiency using a vapor loss control system. This limitation does not apply during periods of planned routine maintenance which may not exceed 240 hours per year. [LAC 33:III.2103.E.2]
- Which Months: All Year Statistical Basis: None specified
- 147 Equip with a vapor loss control system, consisting of a gathering system capable of collecting volatile organic compound vapors and a vapor disposal system capable of processing such organic vapors. All tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place. [LAC 33:III.2103.E]
- 148 Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e. [LAC 33:III.2103.H.3]
- 149 Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable. [LAC 33:III.2103.I]
- 150 Equip with a vapor recovery system which collects all VOC vapors and gases discharged from the storage vessel and a vapor return or disposal system to process such VOC vapors and gases. Subpart Ka. [40 CFR 60.112a(a)(3)]
- 151 VOC, Total \geq 95 % reduction by weight for VOC vapors and gases processed by the vapor recovery system and vapor return or disposal system. Subpart Ka. [40 CFR 60.112a(a)(3)]
- Which Months: All Year Statistical Basis: None specified
- 152 Petroleum liquid storage data recordkeeping by electronic or hard copy at the approved frequency. Maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period, except as provided in 40 CFR 60.115a(d). Subpart Ka. [40 CFR 60.115a]

EQT037 TK-310 - WASTE WATER STORAGE TANK

- 153 Equip with a submerged fill pipe. [LAC 33:III.2103.B]
- 154 Equip internal floating roof with a mechanical shoe seal (metallic-type shoe seal) consisting of a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof. [LAC 33:III.2103.C.1.b]
- 155 Equip internal floating roof with two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous. [LAC 33:III.2103.C.1.c]
- 156 Provide each opening in the internal floating roof (except rim space vents and automatic bleeder vents) with a projection below the liquid surface. In addition, provide each opening (except for leg sleeves, bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains) with a cover equipped with a gasket. Equip automatic bleeder vents and rim space vents with gaskets and equip ladder wells with a sliding cover. [LAC 33:III.2103.C.2]
- 157 Equip with an internal floating roof consisting of a pontoon type roof, double deck roof, or internal floating cover which will rest or float on the surface of the liquid contents and is equipped with a closure seal to close the space between the roof edge and tank wall. All tank gauging and sampling devices will be gas-tight except when gauging or sampling is taking place. [LAC 33:III.2103.C]

SPECIFIC REQUIREMENTS

AI ID: 3585 - Calcasieu Refining Co - Lake Charles Crude Oil Refinery

Activity Number: PER20060006

Permit Number: 0520-00050-V6

Air - Title V Regular Permit Minor Mod

EQT037 TK-310 - WASTE WATER STORAGE TANK

- 158 Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e. [LAC 33:III.2103.H.3]
- 159 Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable. [LAC 33:III.2103.]
- 160 Equip with a fixed roof in combination with an internal floating roof. The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible. Subpart Kb. [40 CFR 60.112b(a)(1)(i)]
- 161 Equip internal floating roof with two seals mounted secondary above the primary so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The primary seal may be vapor-mounted, but both must be continuous. Subpart Kb. [40 CFR 60.112b(a)(1)(ii)(B)]
- 162 Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface. Equip each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains with a cover or lid and maintain in a closed position at all times (i.e., no visible gap) except when the device is in actual use. Equip the cover or lid with a gasket. Bolt covers on each access hatch and automatic gauge float well except when they are in use. Equip automatic bleeder vents with a gasket and close at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. Equip rim space vents with a gasket and set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting. Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening. Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover. Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover. Subpart Kb. [40 CFR 60.112b(a)(1)]
- 163 Tank roof and seals monitored by visual inspection/determination at the regulation's specified frequency. Inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, repair the items before filling the storage vessel. Subpart Kb. [40 CFR 60.113b(a)(1)]
- Which Months: All Year Statistical Basis: None specified
- 164 Tank roof and seals monitored by visual inspection/determination annually. Inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If a failure is detected during inspections required in this paragraph initiate repair provisions. Subpart Kb. [40 CFR 60.113b(a)(2)]
- Which Months: All Year Statistical Basis: None specified
- 165 If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, request a 30-day extension from DEQ in the inspection report required in 40 CFR 60.115b(a)(3). Document in the request for extension that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible. Subpart Kb. [40 CFR 60.113b(a)(2)]
- 166 Tank roof and seals monitored by visual inspection/determination once every five years as specified in 40 CFR 60.113b(a)(4). Subpart Kb. [40 CFR 60.113b(a)(3)(i)]
- Which Months: All Year Statistical Basis: None specified
- 167 Tank roof and seals monitored by visual inspection/determination at the regulation's specified frequency. Inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If a failure is detected during inspections required in this paragraph initiate repair provisions. Subpart Kb. [40 CFR 60.113b(a)(4)]
- Which Months: All Year Statistical Basis: None specified

SPECIFIC REQUIREMENTS

AI ID: 3585 - Calcasieu Refining Co - Lake Charles Crude Oil Refinery

Activity Number: PER20060006

Permit Number: 0520-00050-V6

Air - Title V Regular Permit Minor Mod

EQT037 TK-310 - WASTE WATER STORAGE TANK

- 168 If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in 40 CFR 60.113b(a)(2) and (a)(3)(ii) and at intervals no greater than 5 years in the case of vessels specified in paragraph 40 CFR 60.113b(a)(3)(i) of this section. Subpart Kb. [40 CFR 60.113b(a)(4)]
- 169 Submit notification in writing: Due at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by 40 CFR 60.113b(a)(1) and (a)(4) to afford DEQ an opportunity to have an observer present. If the inspection required by paragraph 40 CFR 60.113b(a)(4) is not planned and the owner or operator could not have known about the inspection 30 days in advance or refilling the tank, notify DEQ at least 7 days prior to the refilling of the storage vessel. Notify by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, submit notification in writing including the written documentation and send by express mail so that it is received by DEQ at least 7 days prior to the refilling. Subpart Kb. [40 CFR 60.113b(a)(5)]
- 170 Submit a report: Due to DEQ as an attachment to the notification required by 40 CFR 60.7(a)(3). This report shall describe the control equipment and certify that the control equipment meets the specifications of 40 CFR 60.112b(a)(1) and 60.113b(a)(1). Keep copies of all reports for at least two years. Subpart Kb. [40 CFR 60.115b(a)(1)]
- 171 Inspection records recordkeeping by electronic or hard copy upon each occurrence of inspection, per 40 CFR 60.113b(a)(1) through (4). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings). Keep copies of all records for at least two years. Subpart Kb. [40 CFR 60.115b(a)(2)]
- 172 Submit a report: Due to DEQ within 30 days of the annual visual inspection required by 40 CFR 60.113b(a)(2) that detects any of the conditions described in 40 CFR 60.113b(a)(2). Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made. Keep copies of all reports for at least two years. Subpart Kb. [40 CFR 60.115b(a)(3)]
- 173 Submit a report: Due to DEQ within 30 days of each inspection required by 40 CFR 60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in 40 CFR 60.113b(a)(3)(ii). The report shall identify the storage vessel and the reason it did not meet the specifications of 40 CFR 61.112b(a)(1) or 40 CFR 60.113b(a)(3) and list each repair made. Keep copies of all reports for at least two years. Subpart Kb. [40 CFR 60.115b(a)(4)]
- 174 Equipment/operational data recordkeeping by electronic or hard copy at the approved frequency. Keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. Keep copies of all records for the life of the source as specified by 40 CFR 60.116b(a). Subpart Kb. [40 CFR 60.116b(b)]
- 175 VOL storage data recordkeeping by electronic or hard copy at the approved frequency. Records consist of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period. Keep copies of all records for at least two years. Subpart Kb. [40 CFR 60.116b(c)]
- 176 Submit notification: Due within 30 days when the maximum true vapor pressure of the liquid exceeds the respective maximum true vapor pressure values for each volume range. Subpart Kb. [40 CFR 60.116b(d)]

EQT038 TK-311 - CRUDE OIL STORAGE TANK

- 177 Equip with a submerged fill pipe. [LAC 33:III.2103.B]
- 178 Equip with an internal floating roof consisting of a pontoon type roof, double deck roof, or internal floating cover which will rest or float on the surface of the liquid contents and is equipped with a closure seal to close the space between the roof edge and tank wall. All tank gauging and sampling devices will be gas-tight except when gauging or sampling is taking place. [LAC 33:III.2103.C]
- 179 Seal closure devices required in LAC 33:III.2103.D shall have no visible holes, tears, or other openings in the seals or seal fabric. [LAC 33:III.2103.D.2.a]
- 180 Seal closure devices required in LAC 33:III.2103.D shall be intact and uniformly in place around the circumference of the floating roof and the tank wall. [LAC 33:III.2103.D.2.b]

SPECIFIC REQUIREMENTS

AI ID: 3585 - Calcasieu Refining Co - Lake Charles Crude Oil Refinery

Activity Number: PER20060006

Permit Number: 0520-00050-V6

Air - Title V Regular Permit Minor Mod

EQ1038 TK-311 - CRUDE OIL STORAGE TANK

- 181 Seal gap area ≤ 1 in²/ft of tank diameter (6.5 cm²/0.3 m), for gaps between the secondary seal and tank wall that exceed 1/8 inch (0.32 cm) in width. [LAC 33:III.2103.D.2.c]
Which Months: All Year Statistical Basis: None specified
- 182 Seal gap area ≤ 10 in²/ft of tank diameter (65 cm²/0.3 m), for gaps between the primary seal and tank wall that exceed 1/8 inch (0.32 cm) in width. [LAC 33:III.2103.D.2.d]
Which Months: All Year Statistical Basis: None specified
- 183 Secondary Seal or closure mechanism monitored by visual inspection/determination semiannually. [LAC 33:III.2103.D.2.e]
Which Months: All Year Statistical Basis: None specified
- 184 Secondary seals: Seal gap area & width monitored by measurement annually at any tank level, provided the roof is off its legs. [LAC 33:III.2103.D.2.e]
Which Months: All Year Statistical Basis: None specified
- 185 Primary seals: Seal gap area & width monitored by measurement once every five years at any tank level, provided the roof is off its legs. [LAC 33:III.2103.D.2.e]
Which Months: All Year Statistical Basis: None specified
- 186 Equipment/operational data recordkeeping by electronic or hard copy upon occurrence of event. Keep records of conditions that are not up to the standards described in LAC 33:III.2103.D.2, and the date(s) that the standards are not met. Notify the administrative authority within seven days of noncompliance with LAC 33:III.2103.D.2. [LAC 33:III.2103.D.2.e]
- 187 Initiate repairs of seals within seven working days of recognition of defective conditions by ordering appropriate parts, to avoid noncompliance with LAC 33:III.2103. Complete repairs within three months of the ordering of the repair parts. [LAC 33:III.2103.D.2.e]
- 188 Provide all openings in the external floating roof (except for automatic bleeder vents, rim space vent, and leg sleeves) with a projection below the liquid surface. Equip each opening in the roof (except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves) with a cover, seal or lid that is to be maintained in a closed position at all times except when the device is in actual use. Keep automatic bleeder vents closed at all times except when the roof is being floated off the roof leg supports. Set rim vents to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting. Equip any emergency roof drain with a slotted membrane fabric cover or equivalent cover that covers at least 90 percent of the opening. [LAC 33:III.2103.D.3]
- 189 Equip all covers, seals, lids, automatic bleeder vents and rim space vents with gaskets. [LAC 33:III.2103.D.3]
- 190 Control non-slotted guide poles and stilling wells using pole wipers and gasketing between the well and sliding cover. Control slotted guide poles using a float with wiper, pole wiper, and gasketing between the well and sliding cover. [LAC 33:III.2103.D.4.a]
- 191 Submit notification: Due to the Office of Environmental Assessment, Air Quality Assessment Division, prior to installation of guide poles and stilling well systems. Submit a description of the method of control and supporting calculations based upon the Addendum to American Petroleum Institute Publication Number 2517 Evaporative Loss from External Floating Roof Tanks, May 1994, for approval. [LAC 33:III.2103.D.4.a]
- 192 Equipment/operational data monitored by visual inspection/determination semiannually. Inspect control systems required by LAC 33:III.2103.D.4 for rips, tears, visible gaps in the pole or float wiper, and/or missing sliding cover gaskets. [LAC 33:III.2103.D.4.d]
Which Months: All Year Statistical Basis: None specified
- 193 Initiate repairs of any rips, tears, visible gaps in the pole or float wiper, and/or missing sliding cover gaskets by ordering appropriate parts within seven working days after defect is identified, to avoid noncompliance with LAC 33:III.2103.D.4. Complete repairs within three months of the ordering of the repair parts. [LAC 33:III.2103.D.4.d]
- 194 Equip with an external floating roof consisting of a pontoon type roof, double deck type roof, or external floating cover which will rest or float on the surface of the liquid contents and is equipped with a primary closure seal to close the space between the roof edge and tank wall and a continuous secondary seal (a rim mounted secondary) extending from the floating roof to the tank wall. [LAC 33:III.2103.D]
- 195 Equip external floating roof with a primary closure seal, consisting of a liquid mounted seal or a mechanical shoe seal, as defined in LAC 33:III.2103.C.1.a and b. [LAC 33:III.2103.D]
- 196 Determine compliance with LAC 33:III.2103.D.2 and 4 using the methods in LAC 33:III.2103.H.1. [LAC 33:III.2103.H.1]
- 197 Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e. [LAC 33:III.2103.H.3]

SPECIFIC REQUIREMENTS

AI ID: 3585 - Calcasieu Refining Co - Lake Charles Crude Oil Refinery

Activity Number: PER20060006

Permit Number: 0520-00050-V6

Air - Title V Regular Permit Minor Mod

EQT038 TK-311 - CRUDE OIL STORAGE TANK

- 198 Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in LAC 33:III.2103.1.1 - 7, as applicable. [LAC 33:III.2103.1]
- 199 The primary seal is to be either a metallic shoe seal, a liquid-mounted seal, or a vapor-mounted seal. Subpart Ka. [40 CFR 60.112a(a)(1)(i)]
- 200 Seal gap area $\leq 10.0 \text{ in}^2/\text{ft}$ (212 sq cm/meter) of tank diameter for the accumulated area of gaps between the tank wall and the mechanical shoe seal or liquid-mounted primary seal. Subpart Ka. [40 CFR 60.112a(a)(1)(i)(A)]
Which Months: All Year Statistical Basis: None specified
- 201 Seal gap width $\leq 1.5 \text{ in}$ (3.81 cm) for the width of any portion of any gap between the tank wall and the mechanical shoe seal or liquid-mounted primary seal. Subpart Ka. [40 CFR 60.112a(a)(1)(i)(A)]
Which Months: All Year Statistical Basis: None specified
- 202 There are to be no holes, tears, or other openings in the shoe, primary seal fabric, or seal envelope. Subpart Ka. [40 CFR 60.112a(a)(1)(i)(D)]
- 203 Install the secondary seal above the primary seal so that it completely covers the space between the roof edge and the tank wall except as provided in 40 CFR 60.112a(a)(1)(ii)(B). Subpart Ka. [40 CFR 60.112a(a)(1)(ii)(A)]
- 204 Seal gap area $\leq 1.0 \text{ in}^2/\text{ft}$ (21.2 sq cm/meter) of tank diameter for the accumulated area of gaps between the tank wall and the secondary seal used in combination with a metallic shoe or liquid-mounted primary seal. Subpart Ka. [40 CFR 60.112a(a)(1)(ii)(B)]
Which Months: All Year Statistical Basis: None specified
- 205 Seal gap width $\leq 0.5 \text{ in}$ (1.27 cm) for the width of any portion of any gap between the tank wall and the secondary seal used in combination with a metallic shoe or liquid-mounted primary seal. Subpart Ka. [40 CFR 60.112a(a)(1)(ii)(B)]
Which Months: All Year Statistical Basis: None specified
- 206 There are to be no holes, tears or other openings in the secondary seal or seal fabric. Subpart Ka. [40 CFR 60.112a(a)(1)(ii)(C)]
- 207 Each opening in the roof except for automatic bleeder vents and rim space vents is to provide a projection below the liquid surface. Equip each opening in the roof except for automatic bleeder vents, rim space vents and leg sleeves with a cover, seal or lid and maintain in a closed position at all times (i.e., no visible gap) except when the device is in actual use or as described in 40 CFR 60.112a(a)(1)(iv). Close automatic bleeder vents at all times when the roof is floating, except when the roof is being floated off or is being landed on the roof leg supports. Set rim vents to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting. Subpart Ka. [40 CFR 60.112a(a)(1)(iii)]
- 208 Provide each emergency roof drain with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening. Subpart Ka. [40 CFR 60.112a(a)(1)(iv)]
- 209 Equip with an external floating roof consisting of a pontoon-type or double-deck-type cover that rests on the surface of the liquid contents and is equipped with a closure device between the tank wall and the roof edge. Except as provided in 40 CFR 60.112a(a)(1)(ii)(D), the closure device is to consist of two seals, one (secondary) above the other (primary). The roof is to be floating on the liquid at all times (i.e., off the roof leg supports) except during initial fill and when the tank is completely emptied and subsequently refilled. The process of emptying and refilling when the roof is resting on the leg supports shall be continuous and shall be accomplished as rapidly as possible. Subpart Ka. [40 CFR 60.112a(a)(1)]
- 210 Seal gap area & width monitored by measurement at the regulation's specified frequency. Determine the gap areas and maximum gap widths between the primary seal and the tank wall within 60 days of the initial fill with petroleum liquid and at least once every 5 years thereafter using the procedures in 40 CFR 60.113a(a)(1)(ii). Accomplish all primary seal inspections or gap measurements which require the removal or dislodging of the secondary seal as rapidly as possible and replace the secondary seal as soon as possible. Subpart Ka. [40 CFR 60.113a(a)(1)(i)(A)]
Which Months: All Year Statistical Basis: None specified

SPECIFIC REQUIREMENTS

AI ID: 3585 - Calcasieu Refining Co - Lake Charles Crude Oil Refinery

Activity Number: PER20060006

Permit Number: 0520-00050-V6

Air - Title V Regular Permit Minor Mod

EQT038 TK-311 - CRUDE OIL STORAGE TANK

211 Seal gap area & width monitored by measurement at the regulation's specified frequency. Determine the gap areas and maximum gap widths between the secondary seal and the tank wall within 60 days of the initial fill with petroleum liquid and at least once every year thereafter using the procedures in 40 CFR 60.113a(a)(1)(ii). Subpart Ka. [40 CFR 60.113a(a)(1)(i)(B)]

Which Months: All Year Statistical Basis: None specified

212 Gap measurement(s) recordkeeping by electronic or hard copy upon each occurrence of gap measurement performance. Each record shall identify the vessel on which the measurement was performed and shall contain the date of the seal gap measurement, the raw data obtained in the measurement process required by 40 CFR 60.113a(a)(1)(ii) and the calculation required by 40 CFR 60.113a(a)(1)(iii). Keep records of each gap measurement at the plant for a period of at least 2 years following the date of measurement. Subpart Ka. [40 CFR 60.113a(a)(1)(i)(D)]

213 Submit report: Due to DEQ within 60 days of the date of seal gap measurements, if either the seal gap calculated in accord with 40 CFR 60.113a(a)(1)(iii) or the measured maximum seal gap exceeds the limitations specified by 40 CFR 60.112a. The report shall identify the vessel and list each reason why the vessel did not meet the specifications of 40 CFR 60.112a. The report shall also describe the actions necessary to bring the storage vessel into compliance with the specifications of 40 CFR 60.112a. Subpart Ka. [40 CFR 60.113a(a)(1)(i)(E)]

214 Submit notification: Due to DEQ at least 30 days prior to the gap measurement to afford DEQ to have an observer present. Subpart Ka. [40 CFR 60.113a(a)(1)(iv)]

215 Petroleum liquid storage data recordkeeping by electronic or hard copy at the approved frequency. Maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period, except as provided in 40 CFR 60.115a(d). Subpart Ka. [40 CFR 60.115a]

EQT039 TK-312 - CRUDE OIL STORAGE TANK

216 Equip with a submerged fill pipe. [LAC 33:III.2103.B]

217 Equip internal floating roof with a mechanical shoe seal (metallic-type shoe seal) consisting of a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof. [LAC 33:III.2103.C.1.b]

218 Equip internal floating roof with two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous. [LAC 33:III.2103.C.1.c]

219 Provide each opening in the internal floating roof (except rim space vents and automatic bleeder vents) with a projection below the liquid surface. In addition, provide each opening (except for leg sleeves, bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains) with a cover equipped with a gasket. Equip automatic bleeder vents and rim space vents with gaskets and equip ladder wells with a sliding cover. [LAC 33:III.2103.C.2]

220 Equip with an internal floating roof consisting of a pontoon type roof, double deck roof, or internal floating cover which will rest or float on the surface of the liquid contents and is equipped with a closure seal to close the space between the roof edge and tank wall. All tank gauging and sampling devices will be gas-tight except when gauging or sampling is taking place. [LAC 33:III.2103.C]

221 Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e. [LAC 33:III.2103.H.3]

222 Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in LAC 33:III.2103.I.1-7, as applicable. [LAC 33:III.2103.I]

223 Equip with a fixed roof in combination with an internal floating roof. The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible. Subpart Kb. [40 CFR 60.112b(a)(1)(i)]

224 Equip internal floating roof with two seals mounted secondary above the primary so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The primary seal may be vapor-mounted, but both must be continuous. Subpart Kb. [40 CFR 60.112b(a)(1)(ii)(B)]

SPECIFIC REQUIREMENTS

AI ID: 3585 - Calcasteu Refining Co - Lake Charles Crude Oil Refinery

Activity Number: PER20060006

Permit Number: 0520-00050-V6

Air - Title V Regular Permit Minor Mod

EQT039 TK-312 - CRUDE OIL STORAGE TANK

- 225 Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface. Equip each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains with a cover or lid and maintain in a closed position at all times (i.e., no visible gap) except when the device is in actual use. Equip the cover or lid with a gasket. Bolt covers on each access hatch and automatic gauge float well except when they are in use. Equip automatic bleeder vents with a gasket and close at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. Equip rim space vents with a gasket and set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting. Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening. Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover. Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover. Subpart Kb. [40 CFR 60.112b(a)(1)]
- 226 Tank roof and seals monitored by visual inspection/determination at the regulation's specified frequency. Inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, repair the items before filling the storage vessel. Subpart Kb. [40 CFR 60.113b(a)(1)]
Which Months: All Year Statistical Basis: None specified
- 227 Tank roof and seals monitored by visual inspection/determination annually. Inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If a failure is detected during inspections required in this paragraph initiate repair provisions. Subpart Kb. [40 CFR 60.113b(a)(2)]
Which Months: All Year Statistical Basis: None specified
- 228 If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, request a 30-day extension from DEQ in the inspection report required in 40 CFR 60.115b(a)(3). Document in the request for extension that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible. Subpart Kb. [40 CFR 60.113b(a)(2)]
- 229 Tank roof and seals monitored by visual inspection/determination once every five years as specified in 40 CFR 60.113b(a)(4). Subpart Kb. [40 CFR 60.113b(a)(3)(i)]
Which Months: All Year Statistical Basis: None specified
- 230 Tank roof and seals monitored by visual inspection/determination at the regulation's specified frequency. Inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If a failure is detected during inspections required in this paragraph initiate repair provisions. Subpart Kb. [40 CFR 60.113b(a)(4)]
Which Months: All Year Statistical Basis: None specified
- 231 If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in 40 CFR 60.113b(a)(2) and (a)(3)(ii) and at intervals no greater than 5 years in the case of vessels specified in paragraph 40 CFR 60.113b(a)(3)(i) of this section. Subpart Kb. [40 CFR 60.113b(a)(4)]
- 232 Submit notification in writing: Due at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by 40 CFR 60.113b(a)(1) and (a)(4) to afford DEQ an opportunity to have an observer present. If the inspection required by paragraph 40 CFR 60.113b(a)(4) is not planned and the owner or operator could not have known about the inspection 30 days in advance or refilling the tank, notify DEQ at least 7 days prior to the refilling of the storage vessel. Notify by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, submit notification in writing including the written documentation and send by express mail so that it is received by DEQ at least 7 days prior to the refilling. Subpart Kb. [40 CFR 60.113b(a)(5)]

SPECIFIC REQUIREMENTS

AJ ID: 3585 - Calcasieu Refining Co - Lake Charles Crude Oil Refinery

Activity Number: PER20060006

Permit Number: 0520-00050-V6

Air - Title V Regular Permit Minor Mod

EQT039 **TK-312 - CRUDE OIL STORAGE TANK**

- 233 Submit a report: Due to DEQ as an attachment to the notification required by 40 CFR 60.7(a)(3). This report shall describe the control equipment and certify that the control equipment meets the specifications of 40 CFR 60.112b(a)(1) and 60.113b(a)(1). Keep copies of all reports for at least two years. Subpart Kb. [40 CFR 60.115b(a)(1)]
- 234 Inspection records recordkeeping by electronic or hard copy upon each occurrence of inspection, per 40 CFR 60.113b(a)(1) through (4). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings). Keep copies of all records for at least two years. Subpart Kb. [40 CFR 60.115b(a)(2)]
- 235 Submit a report: Due to DEQ within 30 days of the annual visual inspection required by 40 CFR 60.113b(a)(2) that detects any of the conditions described in 40 CFR 60.113b(a)(2). Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made. Keep copies of all reports for at least two years. Subpart Kb. [40 CFR 60.115b(a)(3)]
- 236 Submit a report: Due to DEQ within 30 days of each inspection required by 40 CFR 60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in 40 CFR 60.113b(a)(3)(ii). The report shall identify the storage vessel and the reason it did not meet the specifications of 40 CFR 61.112b(a)(1) or 40 CFR 60.113b(a)(3) and list each repair made. Keep copies of all reports for at least two years. Subpart Kb. [40 CFR 60.115b(a)(4)]
- 237 Equipment/operational data recordkeeping by electronic or hard copy at the approved frequency. Keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. Keep copies of all records for the life of the source as specified by 40 CFR 60.116b(a). Subpart Kb. [40 CFR 60.116b(b)]
- 238 VOL storage data recordkeeping by electronic or hard copy at the approved frequency. Records consist of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period. Keep copies of all records for at least two years. Subpart Kb. [40 CFR 60.116b(c)]
- 239 Submit notification: Due within 30 days when the maximum true vapor pressure of the liquid exceeds the respective maximum true vapor pressure values for each volume range. Subpart Kb. [40 CFR 60.116b(d)]

EQT040 **TK-313 - STORAGE TANK (NAPHTHA/KEROSENE/CRUDE)**

- 240 Equip with a submerged fill pipe. [LAC 33:III.2103.B]
- 241 Equip internal floating roof with two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous. [LAC 33:III.2103.C.1.c]
- 242 Provide each opening in the internal floating roof (except rim space vents and automatic bleeder vents) with a projection below the liquid surface. In addition, provide each opening (except for leg sleeves, bleeder vents, rim space vents, column wells, ladder wells, sample wells, and snub drains) with a cover equipped with a gasket. Equip automatic bleeder vents and rim space vents with gaskets and equip ladder wells with a sliding cover. [LAC 33:III.2103.C.2]
- 243 Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e. [LAC 33:III.2103.H.3]
- 244 Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in LAC 33:III.2103.I.1-7, as applicable. [LAC 33:III.2103.I]
- 245 Equip with a fixed roof and an internal floating type cover having a continuous closure device between the tank wall and the cover edge. The cover is to be floating at all times, (i.e., off the leg supports) except during initial fill and when the tank is completely emptied and subsequently refilled. The process of emptying and refilling when the cover is resting on the leg supports shall be continuous and shall be accomplished as rapidly as possible. Each opening in the cover except for automatic bleeder vents and the rim space vents is to provide a projection below the liquid surface. Equip each opening in the cover except for automatic bleeder vents, rim space vents, snub drains and leg sleeves with a cover, seal, or lid and maintain in a closed position at all times (i.e., no visible gap) except when the device is in actual use. Close automatic bleeder vents at all times when the cover is floating except when the cover is being floated off or is being landed on the leg supports. Set rim vents to open only when the cover is being floated off the leg supports or at the manufacturer's recommended setting. Subpart Ka. [40 CFR 60.112a(a)(2)]

SPECIFIC REQUIREMENTS

AI ID: 3585 - Calcasieu Refining Co - Lake Charles Crude Oil Refinery

Activity Number: PER20060006

Permit Number: 0520-00050-V6

Air - Title V Regular Permit Minor Mod

EQT040 TK-313 - STORAGE TANK (NAPHTHA/KEROSENE/CRUDE)

246 Petroleum liquid storage data recordkeeping by electronic or hard copy at the approved frequency. Maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period, except as provided in 40 CFR 60.115a(d). Subpart Ka. [40 CFR 60.115a]

EQT043 TK-316 - STORAGE TANK (NAPHTHA)

247 Equip with a submerged fill pipe. [LAC 33:III.2103.B]

248 Equip internal floating roof with two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous. [LAC 33:III.2103.C.1.c]

249 Provide each opening in the internal floating roof (except rim space vents and automatic bleeder vents) with a projection below the liquid surface. In addition, provide each opening (except for leg sleeves, bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains) with a cover equipped with a gasket. Equip automatic bleeder vents and rim space vents with gaskets and equip ladder wells with a sliding cover. [LAC 33:III.2103.C.2]

250 Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e. [LAC 33:III.2103.H.3]

251 Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable. [LAC 33:III.2103.I]

252 Equip with a fixed roof and an internal floating type cover having a continuous closure between the tank wall and the cover edge. The cover is to be floating at all times, (i.e., off the leg supports) except during initial fill and when the tank is completely emptied and subsequently refilled. The process of emptying and refilling when the cover is resting on the leg supports shall be continuous and shall be accomplished as rapidly as possible. Each opening in the cover except for automatic bleeder vents and the rim space vents is to provide a projection below the liquid surface. Equip each opening in the cover except for automatic bleeder vents, rim space vents, stub drains and leg sleeves with a cover, seal, or lid and maintain in a closed position at all times (i.e., no visible gap) except when the device is in actual use. Close automatic bleeder vents at all times when the cover is floating except when the cover is being floated off or is being landed on the leg supports. Set rim vents to open only when the cover is being floated off the leg supports or at the manufacturer's recommended setting. Subpart Ka. [40 CFR 60.112a(a)(2)]

253 Petroleum liquid storage data recordkeeping by electronic or hard copy at the approved frequency. Maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period, except as provided in 40 CFR 60.115a(d). Subpart Ka. [40 CFR 60.115a]

EQT048 TR-100 - TRUCK RACK (TRUCK LOADING)

254 The mineral spirits loading is subject to the requirements of LAC 33:III.2107. [LAC 33:III.2107.A]

255 Equip with a vapor collection system consisting of, at a minimum, a vapor return line which returns all vapors displaced during loading to the VOC dispensing vessel or to a disposal system. [LAC 33:III.2107.B]

256 VOC, Total \geq 90 % DRE, using a vapor disposal system. [LAC 33:III.2107.B]

Which Months: All Year Statistical Basis: None specified

257 Prevent spills during the attachment and disconnection of filling lines or arms. Equip loading and vapor lines with fittings which close automatically when disconnected, or equip to permit residual VOC in the loading line to discharge into a collection system or disposal or recycling system. [LAC 33:III.2107.B]

258 VOC, Total monitored by visual, audible, and/or olfactory during loading or unloading, to detect leaks. [LAC 33:III.2107.C]

Which Months: All Year Statistical Basis: None specified

259 Discontinue loading or unloading through the affected transfer lines when a leak is observed; do not resume loading or unloading until the observed leak is repaired. [LAC 33:III.2107.C]

260 Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in LAC 33:III.2107.D.1 and 2. [LAC 33:III.2107.D]

261 Determine compliance with LAC 33:III.2107.B using the methods in LAC 33:III.2107.E.1 through 5, as appropriate. [LAC 33:III.2107.E]

SPECIFIC REQUIREMENTS

AI ID: 3585 - Calcasieu Refining Co - Lake Charles Crude Oil Refinery

Activity Number: PER20060006

Permit Number: 0520-00050-V6

Air - Title V Regular Permit Minor Mod

EQ1049 WWTC-100 - WASTEWATER TREATMENT AND COLLECTION

- 262 Equip each drain with water seal controls. Subpart QQQ. [40 CFR 60.692-2(a)(1)]
- 263 Equipment/operational data monitored by visual inspection/determination once initially and monthly thereafter. Monitor drains in active service for indications of low water levels or other conditions that would reduce the effectiveness of the water seal controls. Subpart QQQ. [40 CFR 60.692-2(a)(2)]
- Which Months: All Year Statistical Basis: None specified
- 264 Equipment/operational data monitored by technically sound method once initially and semiannually thereafter. Monitor the tightly sealed cap or plug over a drain that is out of service to ensure cap or plug are in place and properly installed. Subpart QQQ. [40 CFR 60.692-2(a)(4)]
- Which Months: All Year Statistical Basis: None specified
- 265 Add water or make first attempts at repair as soon as practicable, but not later than 24 hours after low water levels or improperly installed caps or plugs are detected, except as specified in 40 CFR 60.692-6. Subpart QQQ. [40 CFR 60.692-2(a)(5)]
- 266 Junction boxes: Equip with a cover. Ensure vent pipes are at least 90 cm (3 ft) in length and do not exceed 10.2 cm (4 in) in diameter. Subpart QQQ. [40 CFR 60.692-2(b)(1)]
- 267 Junction boxes: Cover must have a tight seal around the edge and be kept in place at all times, except during inspection and maintenance. Subpart QQQ. [40 CFR 60.692-2(b)(2)]
- 268 Junction boxes: Equipment/operational data monitored by visual inspection/determination once initially and semiannually thereafter. Monitor to ensure the cover is in place and to ensure that the cover has a tight seal around the edge. Subpart QQQ. [40 CFR 60.692-2(b)(3)]
- Which Months: All Year Statistical Basis: None specified
- 269 Junction boxes: Make a first effort at repair as soon as practicable, but not later than 15 calendar days after a broken seal or gap is identified, except as provided in 40 CFR 60.692-6. Subpart QQQ. [40 CFR 60.692-2(b)(4)]
- 270 Sewer lines: Ensure that sewer lines are not open to the atmosphere and are covered or enclosed in a manner so as to have no visual gaps or cracks in joints, seals, or other emission interfaces. Subpart QQQ. [40 CFR 60.692-2(c)(1)]
- 271 Sewer lines: Equipment/operational data monitored by visual inspection/determination once initially and semiannually thereafter. Monitor the portion of each unburied sewer line for indication of cracks, gaps, or other problems that could result in VOC emissions. Subpart QQQ. [40 CFR 60.692-2(c)(2)]
- Which Months: All Year Statistical Basis: None specified
- 272 Sewer lines: Make repairs as soon as practicable, but not later than 15 calendar days after cracks, gaps, or other problems are detected, except as specified in 40 CFR 60.692-6. Subpart QQQ. [40 CFR 60.692-2(c)(3)]
- 273 Do not route refinery wastewater routed through new drains and a new first common downstream junction box, either as part of a new or existing individual drain system, through a downstream catch basin. Subpart QQQ. [40 CFR 60.692-2(e)]
- 274 Before using any equipment installed in compliance with 40 CFR 60.692-2, 60.692-3, 60.692-4, 60.692-5, or 60.693, inspect such equipment for indication of potential emissions, defects, or other problems that may cause requirements of 40 CFR 60 Subpart QQQ not to be met. Subpart QQQ. [40 CFR 60.696(a)]
- 275 Retain all records required by 40 CFR 60 Subpart QQQ for a period of 2 years after being recorded unless otherwise noted. Subpart QQQ. [40 CFR 60.697(a)]
- 276 Inspection records recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep the records specified in 40 CFR 60.697(b)(1) through (b)(3). Subpart QQQ. [40 CFR 60.697(b)]
- 277 Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep the records specified in 40 CFR 60.697(e)(1) through (e)(4), as applicable. Subpart QQQ. [40 CFR 60.697(e)]
- 278 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep the records specified in 40 CFR 60.697(f)(1) through (f)(3) for the life of the source in a readily accessible location. Subpart QQQ. [40 CFR 60.697(f)]
- 279 Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep plans or specifications which indicate the location of out of active service drains covered by tightly sealed caps or plugs for the life of the facility in a readily accessible location. Subpart QQQ. [40 CFR 60.697(g)]

SPECIFIC REQUIREMENTS

AI ID: 3585 - Calcasieu Refining Co - Lake Charles Crude Oil Refinery

Activity Number: PER20060006

Permit Number: 0520-00050-V6

Air - Title V Regular Permit Minor Mod

EQT049 **WWTC-100 - WASTEWATER TREATMENT AND COLLECTION**

280 Submit Notification: Due within 60 days after initial startup. Submit a certification that the equipment necessary to comply with 40 CFR 60 Subpart QQQ has been installed and that the required initial inspections or tests of process drains, sewer lines, junction boxes, oil-water separators, and closed vent systems and control devices have been carried out in accordance with 40 CFR 60 Subpart QQQ. Thereafter, submit a certification semiannually that all of the required inspections have been carried out in accordance with 40 CFR 60 Subpart QQQ. Subpart QQQ. [40 CFR 60.698(b)(1)]

281 Submit report: Due initially and semiannually thereafter. Submit a report that summarizes all inspections when a water seal was dry or otherwise breached, when a drain cap or plug was missing or improperly installed, or when cracks, gaps, or other problems were identified that could result in VOC emissions, including information about the repairs or corrective action taken. Subpart QQQ. [40 CFR 60.698(c)]

EQT050 **TK-201 - PRESSURIZED STORAGE TANK**

282 Maintain working pressures sufficient at all times under normal operating conditions to prevent vapor or gas loss to the atmosphere. [LAC 33:III.2103.B]

EQT051 **H-701 - VACUUM TOWER UNIT REBOILER**

283 Opacity \leq 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
Which Months: All Year Statistical Basis: None specified

284 Opacity \leq 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]

Which Months: All Year Statistical Basis: Six-minute average

285 Total suspended particulate \leq 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]

Which Months: All Year Statistical Basis: None specified

286 Comply with NSPS Subpart J. [LAC 33:III.1503.C]

287 Fuel gas: Hydrogen sulfide \leq 0.1 gr/dscf (230 mg/dscm). Subpart J. [40 CFR 60.104(a)(1)]

Which Months: All Year Statistical Basis: Three-hour rolling average

288 Monitor H2S level in the fuel gas (\leq 150 mg/dscm) with the alternative monitoring procedure approved by EPA on April 18, 1997. [40 CFR 60.105]

289 Use as reference methods and procedures the test methods in 40 CFR 60 appendix A or other methods and procedures as specified in 40 CFR 60.106, except as provided in 40 CFR 60.8(b), in conducting the performance tests required in 40 CFR 60.8. Subpart J. [40 CFR 60.106(a)]

290 Determine compliance with standards using the test methods and procedures specified in 40 CFR 60.106(a) through (k). Subpart J. [40 CFR 60.106]

FUG007 **FUG - FACILITY FUGITIVES**

291 Equip all rotary pumps and compressors handling volatile organic compounds having a true vapor pressure of 1.5 psia or greater at handling conditions with mechanical seals or other equivalent equipment. [LAC 33:III.2111]

292 Comply with LAC 33:III.2122 by implementing the Louisiana Consolidated Fugitive Emission Program Guidelines. Compliance is achieved through compliance with 40 CFR Part 60, Subpart GGG. [LAC 33:III.2122]

293 A leak detection and repair level of 500 ppm shall be used for all fugitive components, except for the process pump seals, which have the leak detection level of 5,000 ppm. [LAC 33:III.501.C.6]

294 Comply with the requirements of 40 CFR 60.482-1 to 482-10 as soon as practicable, but no later than 180 days after initial startup. Subpart GGG. [40 CFR 60.592(a)]

295 Comply with the provisions of 40 CFR 60.485 except as provided in 40 CFR 60.593. Subpart GGG. [40 CFR 60.592(d)]

SPECIFIC REQUIREMENTS

AI ID: 3585 - Calcasieu Refining Co - Lake Charles Crude Oil Refinery

Activity Number: PER20060006

Permit Number: 0520-00050-V6

Air - Title V Regular Permit Minor Mod

FUG007 FUG - FACILITY FUGITIVES

296 Comply with the provisions of 40 CFR 60.486 and 60.487. Subpart GGG. [40 CFR 60.592(e)]

GRP004 Lake Charles Crude Oil Refinery

- 297 Emissions of smoke which pass onto or across a public road and create a traffic hazard by impairment of visibility as defined in LAC 33:III.111 or intensify an existing traffic hazard condition are prohibited. [LAC 33:III.1103]
- 298 Emissions of particulate matter which pass onto or across a public road and create a traffic hazard by impairment of visibility or intensify an existing traffic hazard condition are prohibited. [LAC 33:III.1303.B]
- 299 Maintain best practical housekeeping and maintenance practices at the highest possible standards to reduce the quantity of organic compounds emissions. Good housekeeping shall include, but not be limited to, the practices listed in LAC 33:III.2113.A.1-5. [LAC 33:III.2113.A]
- 300 Failure to pay the prescribed application fee or annual fee as provided herein, within 90 days after the due date, will constitute a violation of these regulations and shall subject the person to applicable enforcement actions under the Louisiana Environmental Quality Act including, but not limited to, revocation or suspension of the applicable permit, license, registration, or variance. [LAC 33:III.219]
- 301 Discharges of odorous substances at or beyond property lines which cause a perceived odor intensity of six or greater on the specified eight point butanol scale as determined by Method 41 of LAC 33:III.2901.G are prohibited. [LAC 33:III.2901.D]
- 302 If requested to monitor for odor intensity, take and transport samples in a manner which minimizes alteration of the samples either by contamination or loss of material. Evaluate all samples as soon after collection as possible in accordance with the procedures set forth in LAC 33:III.2901.G. [LAC 33:III.2901.F]
- 303 Acetaldehyde < 0.01 tons/yr. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: Annual maximum
- 304 Benzene <= 8.33 tons/yr. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: Annual maximum
- 305 Ethyl benzene <= 0.70 tons/yr. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: Annual maximum
- 306 Hydrogen sulfide <= 0.16 tons/yr. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: Annual maximum
- 307 Methanol < 0.01 tons/yr. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: Annual maximum
- 308 Naphthalene <= 2.09 tons/yr. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: Annual maximum
- 309 Phenol < 0.01 tons/yr. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: Annual maximum
- 310 Polynuclear Aromatic Hydrocarbons <= 0.13 tons/yr. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: Annual maximum
- 311 Sulfuric acid <= 0.03 tons/yr. [LAC 33:III.501.C.6]
Which Months: Phases: Statistical Basis: Annual maximum
- 312 Toluene <= 3.29 tons/yr. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: Annual maximum
- 313 Xylene (mixed isomers) <= 2.78 tons/yr. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: Annual maximum

SPECIFIC REQUIREMENTS

AI ID: 3585 - Calcasieu Refining Co - Lake Charles Crude Oil Refinery

Activity Number: PER20060006

Permit Number: 0520-00050-V6

Air - Title V Regular Permit Minor Mod

GRP004 Lake Charles Crude Oil Refinery

- 314 Particulate matter (10 microns or less) \leq 17.25 tons/yr. [LAC 33:III.501.C.6]
 Which Months: All Year Statistical Basis: Annual maximum
- 315 Sulfur dioxide \leq 40.63 tons/yr. [LAC 33:III.501.C.6]
 Which Months: All Year Statistical Basis: Annual maximum
- 316 Nitrogen oxides \leq 109.09 tons/yr. [LAC 33:III.501.C.6]
 Which Months: All Year Statistical Basis: Annual maximum
- 317 Carbon monoxide \leq 122.65 tons/yr. [LAC 33:III.501.C.6]
 Which Months: All Year Statistical Basis: Annual maximum
- 318 n-Hexane \leq 5.84 tons/yr. [LAC 33:III.501.C.6]
 Which Months: All Year Statistical Basis: Annual maximum
- 319 Formaldehyde \leq 0.18 tons/yr. [LAC 33:III.501.C.6]
 Which Months: All Year Statistical Basis: Annual maximum
- 320 Zinc (and compounds) \leq 0.04 tons/yr. [LAC 33:III.501.C.6]
 Which Months: All Year Statistical Basis: Annual maximum
- 321 VOC, Total \leq 133.66 tons/yr. [LAC 33:III.501.C.6]
 Which Months: All Year Statistical Basis: Annual maximum
- 322 Activate the preplanned abatement strategy listed in LAC 33:III.5611. Table 5 when the administrative authority declares an Air Pollution Alert. [LAC 33:III.5609.A.1.b]
- 323 Activate the preplanned abatement strategy listed in LAC 33:III.5611. Table 6 when the administrative authority declares an Air Pollution Warning. [LAC 33:III.5609.A.2.b]
- 324 Activate the preplanned abatement strategy listed in LAC 33:III.5611. Table 7 when the administrative authority declares an Air Pollution Emergency. [LAC 33:III.5609.A.3.b]
- 325 Prepare standby plans for the reduction of emissions during periods of Air Pollution Alert, Air Pollution Warning and Air Pollution Emergency. Design standby plans to reduce or eliminate emissions in accordance with the objectives as set forth in LAC 33:III.5611. Tables 5, 6, and 7. [LAC 33:III.5609.A]
- 326 Submit standby plan for the reduction or elimination of emissions during an Air Pollution Alert, Air Pollution Warning, or Air Pollution Emergency. Due within 30 days after requested by the administrative authority. [LAC 33:III.5611.A]
- 327 During an Air Pollution Alert, Air Pollution Warning or Air Pollution Emergency, make the standby plan available on the premises to any person authorized by the department to enforce these regulations. [LAC 33:III.5611.B]
- 328 Comply with the provisions in 40 CFR 68, except as specified in LAC 33:III.5901. [LAC 33:III.5901.A]
- 329 Identify hazards that may result from accidental releases of the substances listed in 40 CFR 68.130, Table 59.0 of LAC 33:III.5907, or Table 59.1 of LAC 33:III.5913 using appropriate hazard assessment techniques, design and maintain a safe facility, and minimize the off-site consequences of accidental releases of such substances that do occur. [LAC 33:III.5907]
- 330 Submit amended registration: Due to the Department of Environmental Quality, Office of Environmental Compliance, Emergency and Radiological Services Division, within 60 days after the information in the submitted registration is no longer accurate. [LAC 33:III.5911.C]
- 331 Submit Emission Inventory (EI)/Annual Emissions Statement: Due annually, by the 31st of March for the period January 1 to December 31 of the previous year unless otherwise directed. Submit emission inventory data in the format specified by the Office of Environmental Assessment, Air Quality Assessment Division. Include all data applicable to the emissions source(s), as specified in LAC 33:III.919.A-D. [LAC 33:III.919.D]
- 332 All affected facilities shall comply with all applicable provisions in 40 CFR 60 Subpart A. [40 CFR 60]
- 333 Provide DEQ with written notice of intention to demolish or renovate prior to performing activities to which 40 CFR 61 Subpart M applies. Delivery of the notice by U.S. Postal Service, commercial delivery service, or hand delivery is acceptable. Subpart M. [40 CFR 61.145(b)(1)]

SPECIFIC REQUIREMENTS**AI ID: 3585 - Calcasieu Refining Co - Lake Charles Crude Oil Refinery****Activity Number: PER20060006****Permit Number: 0520-00050-V6****Air - Title V Regular Permit Minor Mod****GRP004 Lake Charles Crude Oil Refinery**

- 334 Do not install or reinstall on a facility component any insulating materials that contain commercial asbestos if the materials are either molded and friable or wet-applied and friable after drying. Subpart M. [40 CFR 61.148]
- 335 Comply with the requirements of 40 CFR 61.342(c) through (h) no later than 90 days following the effective date, unless a waiver of compliance has been obtained under 40 CFR 61.11, or by the initial startup for a new source with an initial startup after the effective date. Subpart FF. [40 CFR 61.342(b)].
- 336 Determine compliance with 40 CFR 61 Subpart FF using the test methods and procedures specified in 40 CFR 61.355(a) through (i), as applicable. Subpart FF. [40 CFR 61.355]
- 337 Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency Maintain records as specified in 40 CFR 61.356(a) through (n), as applicable. Maintain each record in a readily accessible location at the facility site for a period not less than two years from the date the information is recorded unless otherwise specified. Subpart FF. [40 CFR 61.356]
- 338 *Submit report: Due annually and whenever there is a change in the process generating the waste stream that could cause the total annual benzene quantity from facility waste to increase to 10 Mg/yr (11 ton/yr) or more. Submit updates to the information specified in 40 CFR 61.357(a)(1) through (a)(3) or, if the information in 40 CFR 61.357(a)(1) through (3) is not changed in the following year, a statement to that effect. Subpart FF. [40 CFR 61.357(c)]*
- 339 All affected facilities shall comply with all applicable provisions in 40 CFR 61 Subpart A. [40 CFR 61]
- 340 Equipment/operational data recordkeeping by electronic or hard copy continuously. Document that the nearest public receptor is beyond the distance to a toxic or flammable endpoint defined in 68.22. [40 CFR 68.12(b)(1)]
- 341 Complete the five-year accident history for the process as provided in 68.42. [40 CFR 68.12(b)(2)]
- 342 *Ensure that response actions have been coordinated with local emergency planning and response agencies. [40 CFR 68.12(b)(3)]*
- 343 Include in the RMP the certification specified in 68.12(b)(4). [40 CFR 68.12(b)(4)]
- 344 *Submit Risk Management Plan (RMP): Due no later than June 21, 1999, or three years after the date on which a regulated substance is first listed under 68.130, or the date on which a regulated substance is first present above a threshold quantity in a process. Submit in a method and format to a central point as specified by EPA prior to June 21, 1999. [40 CFR 68.150]*
- 345 Provide in the RMP an executive summary that includes a brief description of the elements listed in 68.155(a) through (g). [40 CFR 68.155]
- 346 Complete a single registration form and include in the RMP. Cover all regulated substances handled in covered processes. Include in the registration the information specified in 68.160(b)(1) through (13). [40 CFR 68.160]
- 347 Submit in the RMP information one worst-case release scenario for each Program 1 process. Include the data specified in 68.165(b)(1) through (13). [40 CFR 68.165]
- 348 Submit in the RMP the information provided in 68.42(b) on each accident covered by 68.42(a). [40 CFR 68.168]
- 349 Provide in the RMP the emergency response information listed in 68.180(a) through (c). [40 CFR 68.180]
- 350 Submit revised registration to EPA: Due within six months after a stationary source is no longer subject to 40 CFR 68. Indicate that the stationary source is no longer covered. [40 CFR 68.190(c)]
- 351 Review and update the RMP as specified in 68.190(b) and submit it in a method and format to a central point specified by EPA prior to June 21, 1999. [40 CFR 68.190]
- 352 Maintain records supporting the implementation of 40 CFR 68 for five years unless otherwise provided. [40 CFR 68.200]
- 353 Use the endpoints specified in 68.22(a) through (g) for analyses of offsite consequences. [40 CFR 68.22]
- 354 Analyze the release scenarios in 68.25, as specified in 68.25(a) through (h). [40 CFR 68.25]
- 355 Identify and analyze at least one alternative release scenario for each regulated toxic substance held in a covered process(es) and at least one alternative release scenario to represent all flammable substances held in covered processes, as specified in 68.28(b) through (e). [40 CFR 68.28]
- 356 Estimate in the RMP the population within a circle with its center at the point of the release and a radius determined by the distance to the endpoint defined in 68.22(a). [40 CFR 68.30]

SPECIFIC REQUIREMENTS

AI ID: 3585 - Calcasieu Refining Co - Lake Charles Crude Oil Refinery
Activity Number: PER20060006
Permit Number: 0520-00050-V6
Air - Title V Regular Permit Minor Mod

GRP004 Lake Charles Crude Oil Refinery

- 357 List in the RMP environmental receptors within a circle with its center at the point of the release and a radius determined by the distance to the endpoint defined in 68.22(a). [40 CFR 68.33]
- 358 Submit revised RMP: Due within six months after changes in processes, quantities stored or handled, or any other aspect of the stationary source increase or decrease the distance to the endpoint by a factor of two or more. [40 CFR 68.36(b)]
- 359 Review and update the offsite consequence analyses at least once every five years. Complete a revised analysis within six months if changes in processes, quantities stored or handled, or any other aspect of the stationary source might reasonably be expected to increase or decrease the distance to the endpoint by a factor of two or more. [40 CFR 68.36]
- 360 Equipment/operational data recordkeeping by electronic or hard copy continuously. Maintain the records specified in 68.39(a) through (e) on the offsite consequence analyses. [40 CFR 68.39]
- 361 Include in the five-year accident history all accidental releases from covered processes that resulted in deaths, injuries, or significant property damage on site, or known offsite deaths, injuries, evacuations, sheltering in place, property damage, or environmental damage. Include the information specified in 68.42(b)(1) through (10) for each accidental release. [40 CFR 68.42]
- 362 Submit Title V permit application for renewal: Due 180 calendar days before permit expiration date. [40 CFR 70.5(a)(1)(iii)]
- 363 Submit Title V monitoring results report: Due semiannually, by March 31st and September 30th for the preceding periods encompassing July through December and January through June, respectively. Submit reports to the Office of Environmental Compliance, Surveillance Division. Certify reports by a responsible company official. Clearly identify all instances of deviations from permitted monitoring requirements. For previously reported deviations, in lieu of attaching the individual deviation reports, clearly reference the communication(s)/correspondence(s) constituting the prior report, including the date the prior report was submitted. [40 CFR 70.6(a)(3)(iii)(A)]
- 364 Submit Title V excess emissions report: Due quarterly, by June 30, September 30, December 31, March 31. Submit reports of all permit deviations to the Office of Environmental Compliance, Surveillance Division. Certify all reports by a responsible official in accordance with 40 CFR 70.5(c). The reports submitted on March 31 and September 30 may be consolidated with the semi-annual reports required by 40 CFR 70.6(a)(3)(iii)(A) as long as the report clearly indicates this and all required information is included and clearly delineated in the consolidated report. [40 CFR 70.6(a)(3)(iii)(B)]
- 365 Submit Title V compliance certification: Due annually, by the 31st of March. Submit to the Office of Environmental Compliance, Surveillance Division. [40 CFR 70.6(c)(5)(iv)]